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United States  
Department of  
Agriculture

Soil  
Conservation  
Service

Portland,  
Oregon



# Water Supply Outlook for Oregon

as of FEBRUARY 1, 1984

CONTIN





## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

| STATE              | ADDRESS  |
|--------------------|--|
| Alaska             | Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504     |
| Arizona            | Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025 |
| Colorado (N. Mex.) | P. O. Box 17107, Denver, Colorado 80217                                |
| Idaho              | Room 345, 304 N. 8th. St., Boise, Idaho 83702                          |
| Montana            | P. O. Box 98, Bozeman, Montana 59715                                   |
| Nevada             | P. O. Box 4850, Reno, Nevada 89505                                     |
| Oregon             | 1220 S. W. Third Ave., Portland, Oregon 97204                          |
| Utah               | 4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138    |
| Washington         | 360 U. S. Court House, Spokane, Washington 99201                       |
| Wyoming            | P. O. Box 2440, Casper, Wyoming 82602                                  |

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



# **WATER SUPPLY OUTLOOK FOR OREGON**

and  
**FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**

*Issued*

February 1, 1984

*Issued by*

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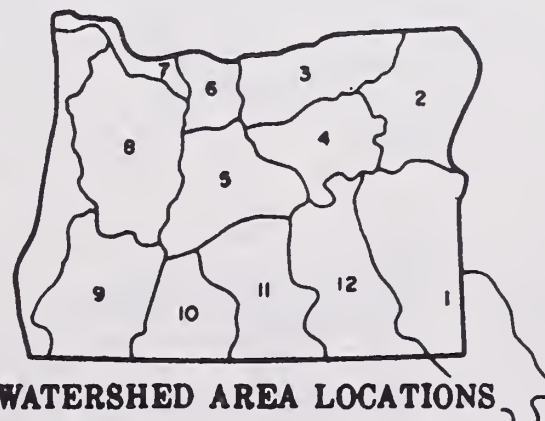
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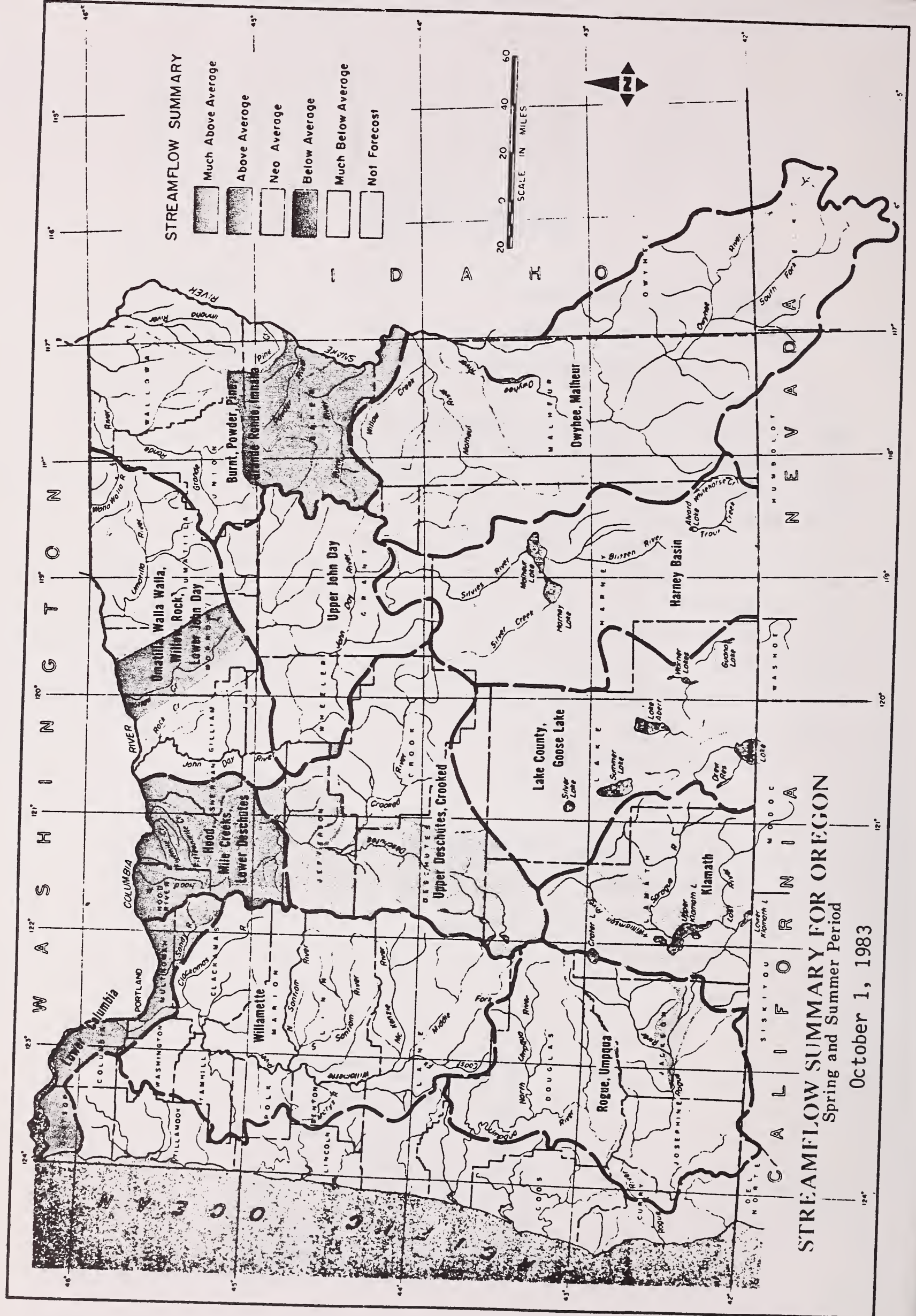
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# WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

FEBRUARY 1, 1984

\*\*\*\*\*  
\* Near to much above average water supplies are forecast for Oregon next \*  
\* spring and summer. The snowpack over most of the state is near or \*  
\* above normal. West of the Cascades it is much below to near normal, \*  
\* Precipitation during January has been very low but remains near normal \*  
\* for the winter season. Reservoir levels remain high and all should \*  
\* fill this year. \*  
\*\*\*\*\*

## SNOW COVER

Warm temperatures began a premature melting of the snowpack in the Cascades and in northeastern Oregon. This melting, combined with much below precipitation during January, results in a below normal snowpack over 1/3 of the state. West of the Cascades the snowpack ranges from 44 percent of normal in the north to 111 percent in the south. East of the Cascades the snowpack ranges from below to near normal in the north and much above normal in the south.

## PRECIPITATION

January precipitation amounts have been very low. The highest precipitation (72 percent of average) occurred in the northeast portion of the state. The lowest values were in Lake County which had 15 percent of normal precipitation. However, the winter precipitation amounts remain near normal except in the southeast quarter of the state where it is above to much above normal.

## RESERVOIR STORAGE

Reservoir storage remains very good throughout the state. As of February 1, 27 irrigation reservoirs were reporting storage that is 131 percent of normal for this time of year. This storage is 76 percent of capacity. All reservoirs should fill this year.

## STREAMFLOW

Streamflow has been above average for the water year throughout most of Oregon. It should remain near to much above normal throughout the rest of the year.

-continued on next page-

Prospective streamflow as a percent of average on representative Oregon streams is as follows:

| STREAM                                | PERIOD      | % OF AVERAGE |
|---------------------------------------|-------------|--------------|
| Owyhee net Inflow                     | Feb.-July   | 213          |
| Grande Ronde @ LaGrande               | March-Sept. | 99           |
| Umatilla @ Pendleton                  | March-Sept. | 93           |
| Deschutes @ Benham Falls              | April-Sept. | 108          |
| Willamette Mid. Fork<br>near Oakridge | April-Sept. | 95           |
| Rogue @ Raygold                       | April-Sept. | 107          |
| Upper Klamath Lake<br>net Inflow      | April-Sept. | 116          |
| Silvies near Burns                    | March-July  | 141          |

Malheur Lake in Harney County is expected to continue to rise. The July 1 level is forecast to be 4100.56 feet with a surface of 109,000 acres. The normal surface of this lake on July 1 is 40,000 acres.

These forecasts assume normal weather conditions will occur throughout the forecast period.

The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.



Water supplies are forecast to be excellent this summer. Streamflow should be  $1\frac{1}{2}$  times to twice normal. The snowpack is also very good with  $1\frac{1}{2}$  to  $2\frac{1}{2}$  times normal amounts in the mountains. Precipitation for January was very low, only 35% of normal. However, for the winter season it is 153% of normal. Reservoir storage is much above average for this time of year. Streams will recede 2 to 4 weeks later than normal this summer.





## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|----------------------|
|                                     | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Bully Creek at Warm Springs         | 24                 | 167                | March-May       |                    | 14.4 b               |
| Malheur near Drewsey                | 150                | 142                | Feb.-July       |                    | 106                  |
|                                     | 113                | 161                | April-Sept.     |                    | 70                   |
| Malheur, North Fork at Beulah       | 118                | 149                | Feb.-July       |                    | 79                   |
|                                     | 99                 | 157                | April-Sept.     |                    | 63                   |
| Owyhee Reservoir net Inflow         | 1,193              | 213                | Feb.-July       |                    | 561                  |
|                                     | 809                | 215                | April-Sept.     |                    | 376                  |
| Owee at Rome                        | 1,274              | 213                | Feb.-July       |                    | 598 b                |
| Succor Creek near Jordan Valley     | 29                 | 179                | Feb.-July       |                    | 16.2 b               |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT   | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|------------------|---------------------------|--|--------------------------------|
| Owyhee near Rome | 2000                      | May 31   | May 14                         |
|                  | 1000                      | June 26  | May 28                         |
|                  | 500                       | July 26  | June 11                        |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR        | Usable Capacity | Usable Storage |           |                      |
|------------------|-----------------|----------------|-----------|----------------------|
|                  |                 | This Year      | Last Year | Average <sup>c</sup> |
| Beulah Reservoir | 60.0            | 36.4           | 42.5      | 24.9                 |
| Bully Creek      | 30.0            | 15.0           | 19.8      | 14.5                 |
| Owyhee           | 715.0           | 590.2          | 619.0     | 444.0                |
| Warm Springs     | 191.0           | 128.2          | 139.2     | 83.0                 |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Jordan Creek                     | 1                          | 110                                  | 172                  |
| Malheur River                    | 4                          | 119                                  | 152                  |
| Owyhee River                     | 4                          | 142                                  | 240                  |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-82 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

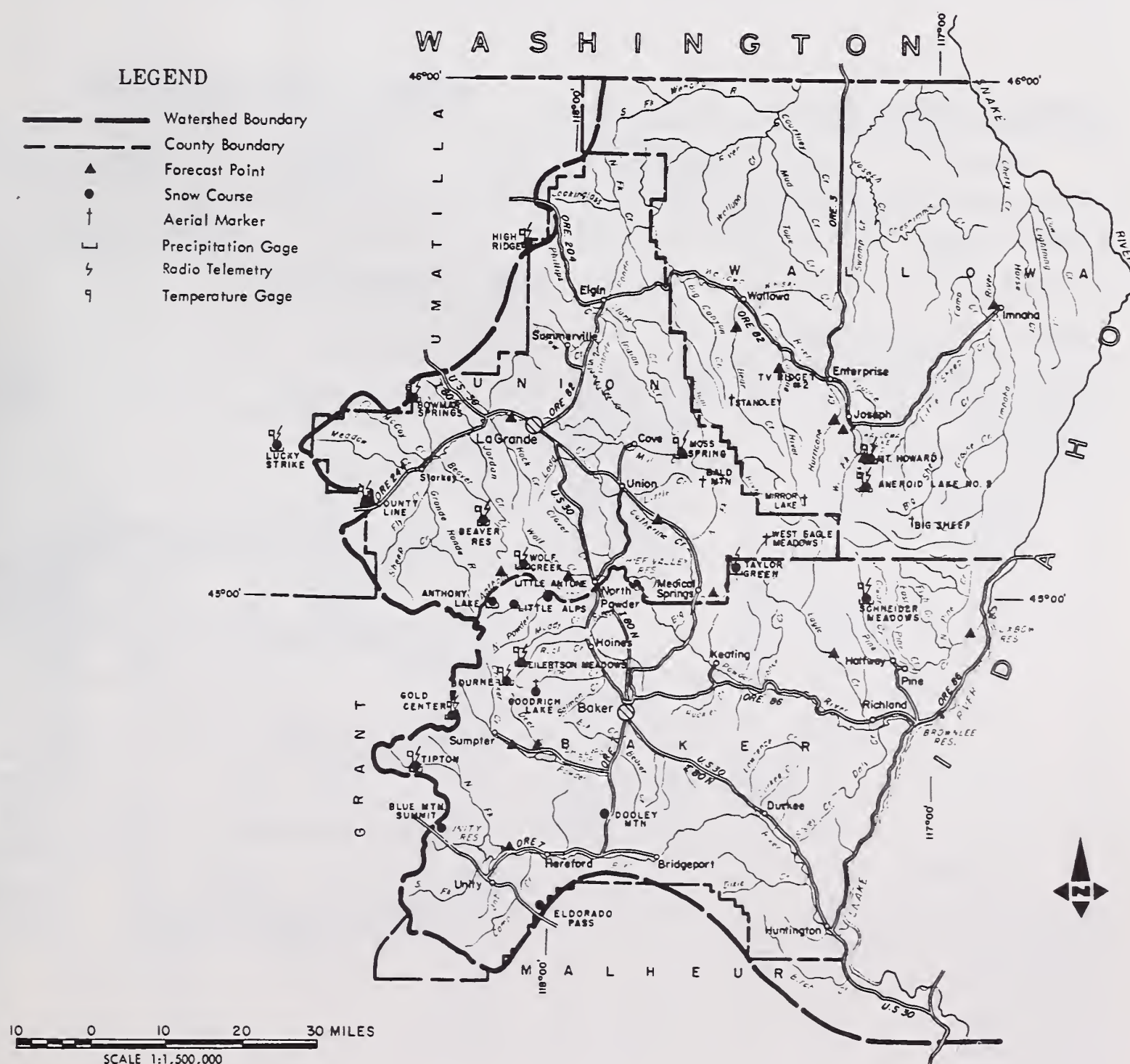
# WATER SUPPLY OUTLOOK

## BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water supplies will be near average this spring and summer. Streamflow is forecast to be near normal except for 116% on the Powder and 138% on the Burnt River. Snowpack is also near normal except on the Burnt where it is 119% of normal. January precipitation (72% of normal) is the best in the state. For the winter season it is 99% of normal. Reservoir storage is excellent with all reservoir contents above normal for this time of year. All reservoirs in the area should fill this year.





# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT            | THIS YEAR          |                    | PAST RECORD        |                          |
|--|--------------------|--------------------|--------------------|--------------------------|
|  | FORECAST           |                    | THOUSAND ACRE FEET |                          |
|  | Thousand Acre Feet | Percent of Average | PERIOD             | Last Year      Average C |
| Anthony Creek blw. North Fork nr. North Powder | 16.1               | 93                 | Feb.-July          | 17.3 b                   |
| Bear near Wallowa                              | 69                 | 105                | April-Sept.        | 66                       |
| Big Creek blw. Burn Creek near Medical Spring  | 13.6               | 109                | Feb.-July          | 12.5 b                   |
| Burnt near Hereford                            | 59                 | 123                | Feb.-July          | 48                       |
|  | 47                 | 138                | April-Sept.        | 34                       |
| Catherine near Union                           | 66                 | 103                | April-Sept.        | 64                       |
| Deer Creek above Phillips Res. near Sumpter    | 23                 | 125                | Feb.-July          | 18.4 b                   |
| Eagle Creek above Skull Creek                  | 182                | 108                | April-July         | 169                      |
|  | 198                | 108                | April-Sept.        | 184                      |
| Grande Ronde at La Grande                      | 196                | 99                 | March-Sept.        | 198                      |
|  | 161                | 99                 | April-Sept.        | 162                      |
| Hurricane near Joseph                          | 43                 | 93                 | April-Sept.        | 46 b                     |
| Imnaha at Imnaha                               | 298                | 99                 | April-Sept.        | 301                      |
| Lostine near Lostine                           | 111                | 90                 | April-Sept.        | 123                      |
| Pine Creek near Oxbow                          | 211                | 90                 | Feb.-July          | 234 b                    |
| Powder near Sumpter                            | 64                 | 114                | April-July         | 56                       |
|  | 66                 | 116                | April-Sept.        | 57                       |
| Wallowa, East Fork near Joseph                 | 11.9               | 97                 | Feb.-Sept.         | 12.3                     |
|  | 10.5               | 95                 | April-Sept.        | 11.1                     |
| Wallowa at Joseph                              | 61                 | 91                 | May-July           | 67                       |
| Wolf Creek Reservoir net Inflow                | 13.6               | 101                | March-June         | 13.4 b                   |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR     | Usable Capacity | Usable Storage |           |           |
|---------------|-----------------|----------------|-----------|-----------|
|               |                 | This Year      | Last Year | Average C |
| Phillips Lake | 73.5            | 51.1           | 58.6      | 29.1      |
| Thief Valley  | 17.4            | 17.8           | 17.8      | 15.6      |
| Unity         | 25.2            | 15.6           | 16.3      | 11.9      |
| Wallowa Lake  | 37.5            | 30.4           | 26.3      | 20.5      |
| Wolf Creek    | 10.4            | 2.9            | 4.9       | --        |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED   | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |           |
|------------------------------------|----------------------------|--------------------------------------|-----------|
|                                    |                            | Last Year                            | Average C |
| Burnt River                        | 4                          | 104                                  | 119       |
| Grande Ronde River above La Grande | 3                          | 119                                  | 102       |
| Powder River                       | 4                          | 95                                   | 106       |
| Wallowa, Imnaha, Catherine Creek   | 5                          | 86                                   | 94        |
|                                    |                            | --                                   | --        |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT                           | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|--|---------------------------|--|--------------------------------|
| Eagle Cr.abv.Skull Cr.                   | 225                       | July 25  | July 25                        |
|  | 160                       | Aug. 7   | Aug. 5                         |
|  |                           |  | Avg.value                      |
| Catherine Creek near Union               | 48                        | Aug. 1   | 49                             |
|  | 100                       | July 8   | July 9                         |
|  | 50                        | July 28  | July 28                        |
| Powder near Sumpter                      | 100                       | June 26  | June 25                        |
|  | 20                        | July 25  | July 22                        |
| Deer Cr. abv. Phillips Res. near Sumpter | 40                        | June 17  | June 17                        |
|  | 10                        | July 8   | July 6                         |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



Water supplies should be below to near average this summer. Streamflow forecasts range from 75% on Rhea Creek and 80% on Willow Creek to 106% on Rock Creek. The snowpack is below average; 77% on the Walla Walla, 88% on McKay and 93% on the Umatilla River. Precipitation is below average. For January it was 39% of normal and for the winter season it is 88% of normal. Cold Springs reservoir is only 60% of normal for February 1 and McKay is 156% of normal. The Umatilla River should recede about two weeks earlier than normal this summer.



## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT        | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Butter Creek near Pine City                | 9.8                | 84                 | March-July      |                    | 11.6                 |
| Couse Creek near Milton Freewater          | 6.5                | 94                 | Feb.-July       |                    | 6.9 <sup>b</sup>     |
| McKay near Pilot Rock                      | 21                 | 88                 | April-Sept.     |                    | 24                   |
| Pine Creek near Weston                     | 5.3                | 95                 | Feb.-July       |                    | 5.6 <sup>b</sup>     |
| Rhea Creek near Heppner                    | 7.0                | 75                 | Feb.-July       |                    | 9.3                  |
| Rock Creek above Cayuse Canyon near Condon | 21                 | 106                | Feb.-July       |                    | 19.8 <sup>b</sup>    |
| Umatilla near Gibbon                       | 97                 | 98                 | March-Sept.     |                    | 99                   |
|  | 76                 | 99                 | April-Sept.     |                    | 77                   |
| Umatilla at Pendleton                      | 189                | 93                 | March-Sept.     |                    | 204                  |
|  | 135                | 92                 | April-Sept.     |                    | 147                  |
| Walla Walla, South Fork near Milton        | 77                 | 96                 | March-Sept.     |                    | 80                   |
|  | 65                 | 97                 | April-Sept.     |                    | 67                   |
| Willow Creek at Heppner                    | 7.5                | 80                 | Feb.-July       |                    | 9.4                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT        | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|-----------------------|---------------------------|--|--------------------------------|
| Umatilla at Pendleton | 550                       | May 1  | May 17                         |
| So. Fork Walla Walla  | 200                       | June 3   | June 9                         |
|                       | 103                       | Aug.-Sept. Min.flow                                | Avg.value 105                  |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR    | Usable Capacity | Usable Storage |           |                      |
|--------------|-----------------|----------------|-----------|----------------------|
|              |                 | This Year      | Last Year | Average <sup>c</sup> |
| Cold Springs | 50.0            | 16.6           | 32.3      | 28.2                 |
| McKay        | 73.8            | 49.6           | 49.4      | 31.8                 |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| McKay Creek                      | 3                          | 97                                   | 88                   |
| Umatilla River                   | 2                          | 98                                   | 93                   |
| Walla Walla River                | 1                          | 85                                   | 77                   |

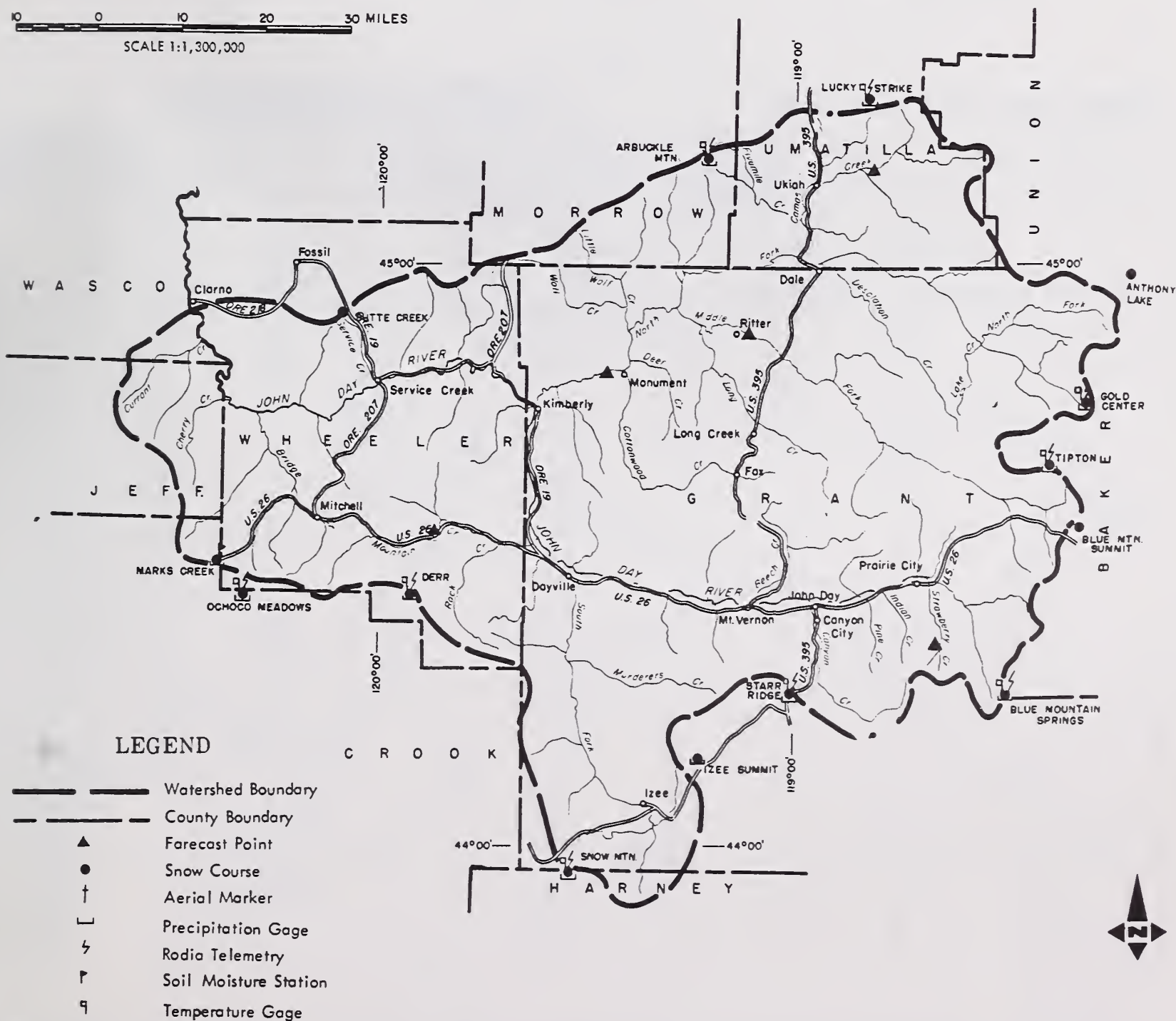
(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

## GENERAL OUTLOOK

Water supplies will be near normal this summer. Streamflow ranges from 97% on Camas Creek to 109% on Strawberry Creek. The mountain snowpack is above average with 112% on the North Fork of the John Day. January's precipitation was only 26% of average and it has been 90% for the winter season.





# STREAMFLOW FORECASTS

| STREAMFLOW FORECASTS                | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|----------------------|
| BASIN, STREAM and/or FORECAST POINT | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Camas Creek near Ukiah              | 42                 | 98                 | March-July      |                    | 43                   |
|                                     | 33                 | 97                 | April-Sept.     |                    | 34                   |
| John Day, Middle Fork at Ritter     | 166                | 125                | March-July      |                    | 133                  |
|                                     | 140                | 125                | April-Sept.     |                    | 112                  |
| John Day, North Fork at Monument    | 684                | 104                | March-July      |                    | 658                  |
|                                     | 571                | 104                | April-Sept.     |                    | 549                  |
| Mountain Creek near Mitchell        | 4.9                | 96                 | Feb.-July       |                    | 5.1 b                |
| Strawberry near Prairie City        | 8.2                | 109                | March-July      |                    | 7.5                  |
|                                     | 8.5                | 109                | April-Sept.     |                    | 7.8                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT      | Low Flow Value<br>Second/Ft. | Forecast Date<br>Stream Will<br>Recede to Low<br>Flow Value | Average Date<br>of Low Flow<br>Value |
|---------------------|------------------------------|---|--------------------------------------|
| John Day at Service | 231                          | Aug. 1  | Avg. value<br>212                    |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN<br>and/or<br>SUB-WATERSHED | Number of<br>Courses<br>Averaged | THIS YEAR'S SNOW<br>WATER AS PERCENT OF |                      |
|--|----------------------------------|---|----------------------|
|  |                                  | Last Year                               | Average <sup>c</sup> |
| John Day, North Fork                   | 7                                | 98                                      | 112                  |
| John Day above Dayville                | 5                                | 124                                     | 145                  |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## UPPER DESCHUTES, CROOKED WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Above average water supplies are expected this spring and summer. Mountain snowpack is near normal in the Deschutes basin and much above normal in the Crooked and Ochoco basins. January precipitation was only 30% of normal, but for the winter season it is 119 percent. Most reservoirs are currently storing above average water supplies and all should fill this year. Streamflow is forecast to be near normal on the Deschutes and much above normal on the Crooked and Ochoco rivers.





# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT              | THIS YEAR          |                    |                 | PAST RECORD        |           |
|--|--------------------|--------------------|-----------------|--------------------|-----------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |           |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average C |
| Beaver Creek near Paulina                        | 63                 | 154                | Feb.-July       |                    | 41 b      |
|  | 27                 | 161                | April-Sept.     |                    | 16.8 b    |
| Crane Prairie Reservoir total Inflow             | 128                | 113                | April-Sept.     |                    | 113       |
| Crescent at Crescent Lake                        | 22                 | 118                | March-July      |                    | 18.7      |
|  | 24                 | 121                | April-Sept.     |                    | 19.9      |
| Crooked River near Prineville                    | 272                | 154                | Feb.-July       |                    | 177       |
|  | 161                | 171                | April-Sept.     |                    | 94        |
| Crooked R., Nor. Fk. blw. Lookout Cr. nr Paulina | 18.0               | 121                | Feb.-July       |                    | 14.9 b    |
| Deschutes at Benham Falls                        | 388                | 110                | April-July      |                    | 353       |
|  | 582                | 108                | April-Sept.     |                    | 540       |
| Deschutes below Snow Creek                       | 80                 | 113                | Feb.-Sept.      |                    | 71        |
|  | 66                 | 112                | April-Sept.     |                    | 59        |
| Deschutes, Little near La Pine                   | 118                | 124                | Feb.-Sept.      |                    | 95        |
|  | 84                 | 124                | April-July      |                    | 68        |
| Ochoco Reservoir net Inflow                      | 44                 | 138                | Feb.-July       |                    | 32 b      |
|  | 28                 | 158                | April-Sept.     |                    | 17.7 b    |
| Squaw near Sisters                               | 52                 | 108                | April-Sept.     |                    | 48        |
| Tumalo near Bend                                 | 48                 | 109                | April-Sept.     |                    | 44        |

## FORECAST DATE of LOW FLOW VALUES

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| FORECAST POINT                | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value | RESERVOIR     | Usable Capacity | Usable Storage |           |           |
|-------------------------------|---------------------------|--|--------------------------------|---------------|-----------------|----------------|-----------|-----------|
|                               |                           |  |                                |               |                 | This Year      | Last Year | Average C |
| Crane Prairie net Inflow      | 394                       | Peak   |                                | Crane Prairie | 55.3            | 50.6           | 42.6      | 42.6      |
|                               | 243                       | Oct. 31  |                                |               |                 |                |           |           |
|                               | Peak                      | May 27   |                                | Crescent Lake | 86.9            | 83.1           | 63.8      | 50.5      |
| Crooked R. near Post          | 100                       | June 9   | June 1                         | Ochoco        | 47.5            | 29.9           | 31.6      | 20.5      |
| Little Deschutes Near La Pine | 400                       | June 6   | June 7                         | Prineville    | 153.0           | 93.3           | 94.5      | 99.5      |
|                               | 200                       | July 10  | July 8                         |               |                 |                |           |           |
| Squaw Cr. nr. Sisters         | 100                       | Aug. 25  | Aug. 16                        | Wickiup       | 200.0           | 188.1          | 194.1     | 153.0     |
| Tumalo Cr. near Bend          | 235                       | June 27  | June 23                        |               |                 |                |           |           |
|                               | 207                       | June 28  | June 25                        |               |                 |                |           |           |
|                               | 150                       | July 9   | July 5                         |               |                 |                |           |           |
|                               | 71                        | Aug. 6   | Aug. 7                         |               |                 |                |           |           |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |           |
|----------------------------------|----------------------------|--------------------------------------|-----------|
|                                  |                            | Last Year                            | Average C |
| Crooked, Ochoco                  | 4                          | 117                                  | 183       |
| Deshutes abv. Wickiup            | 3                          | 102                                  | 96        |
| Little Deshcutes                 | 3                          | 102                                  | 106       |
| Tumalo & Squaw Crs.              | 2                          | 98                                   | 100       |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Water supplies are expected to be below normal this season. The snowpack which is below normal, is 79% of normal on the Hood River drainage and 82% on the White River drainage. January precipitation which was one of the best in the state, was still only 63% of normal. Winter precipitation is the lowest in the state at 82% of its normal February 1 amount. Streamflow is forecast to be 90% of normal for Hood River and 81% for the White River.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT         | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|---|--------------------|--------------------|-----------------|--------------------|----------------------|
|   | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|   | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Hood River at Tucker Bridge near Hood River | 207                | 87                 | April-July      |                    | 238                  |
|   | 256                | 90                 | April-Sept.     |                    | 285                  |
| Hood River, West Fork near Dee              | 116                | 93                 | April-July      |                    | 125                  |
|   | 138                | 95                 | April-Sept.     |                    | 146                  |
| White below Tygh Valley                     | 84                 | 79                 | April-July      |                    | 112                  |
|   | 103                | 81                 | April-Sept.     |                    | 127                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT  | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|---|---------------------------|--|--------------------------------|
| Clear Branch Inflow                                     | *36                       | July 15-31   | **39                           |
| *Average cfs forecast to flow for this two-week period. |                           |  |                                |
| **Average cfs for period of record.                     |                           |  |                                |
| White below Tygh Valley                                 | 200                       | June 26  | July 3                         |
|   | 131                       | Aug. 1   | Avg. value 145                 |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR          | Usable Capacity | Usable Storage |           |                      |
|--------------------|-----------------|----------------|-----------|----------------------|
|                    |                 | This Year      | Last Year | Average <sup>c</sup> |
| Clear Lake (Wasco) | 11.9            | 3.4            | 4.9       | 4.1                  |

## SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Hood River                       | 2                          | 106                                  | 79                   |
| White River                      | 1                          | 103                                  | 82                   |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## LOWER COLUMBIA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The lower Columbia River will have near average water supplies this spring and summer. The snowpack ranges from much below average in northern Idaho and Montana to above average in the Snake River watershed. Washington and Canada generally have an average snowpack. In Oregon the snowpack is below average in the north and progresses to much above average in the south. January precipitation was only 50% of average over most of the Columbia basin except in Canada where it was 80% of average. Streamflow should be 94% of average along the lower Columbia this spring and summer. Streamflow for the Sandy River is forecast to be 82% of average.



# SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN<br>and/or<br>SUB-WATERSHED | Number of<br>Courses<br>Averaged | THIS YEAR'S SNOW<br>WATER AS PERCENT OF |           |
|--|----------------------------------|---|-----------|
|  |                                  | Last Year                               | Average C |
| Sandy River                            | 1                                | 103                                     | 82        |

## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR              |                       |                    | PAST RECORD        |           |
|-------------------------------------|------------------------|-----------------------|--------------------|--------------------|-----------|
|                                     | FORECAST               |                       | FORECAST<br>PERIOD | THOUSAND ACRE FEET |           |
|                                     | Thousand<br>Acres Feet | Percent of<br>Average |                    | Last Year          | Average C |
| Columbia at The Dalles              | 80,700                 | 94                    | April-July         |                    | 86,080    |
|                                     | 94,500                 | 94                    | April-Sept.        |                    | 100,800   |
| Sandy River near Marmot             | 265                    | 81                    | April-July         |                    | 327       |
|                                     | 314                    | 82                    | April-Sept.        |                    | 381       |

## HISTORICAL DATA (Columbia River at The Dalles)

| YEAR         | STREAMFLOW <sup>d</sup> (1,000 A.F.) |            |            | REGULATED PEAK<br>(1,000 cfs) | DATE       |
|--------------|--------------------------------------|------------|------------|-------------------------------|------------|
|              | APR - SEPT.                          | APR - JUNE | MAY - JUNE |                               |            |
| 1963         | 87,860                               | 58,499     | 47,812     | 437                           | June 18    |
| 1964         | 110,422                              | 73,512     | 63,670     | 662                           | June 18    |
| 1965         | 114,222                              | 80,098     | 62,467     | 520                           | June 9     |
| 1966         | 87,386                               | 58,250     | 45,962     | 396                           | June 12    |
| 1967         | 109,319                              | 74,378     | 66,452     | 622                           | June 10    |
| 1968         | 89,102                               | 55,593     | 47,994     | 404                           | June 13    |
| 1969         | 112,377                              | 85,742     | 63,899     | 515                           | May 15     |
| 1970         | 88,243                               | 62,993     | 55,227     | 425                           | May 28     |
| 1971         | 126,898                              | 91,781     | 76,453     | 557                           | May 13     |
| 1972         | 135,500                              | 97,041     | 81,451     | 619                           | June 20    |
| 1973         | 65,549                               | 43,765     | 36,565     | 221                           | December 5 |
| 1974         | 139,501                              | 99,035     | 78,946     | 588                           | June 20    |
| 1975         | 108,906                              | 73,018     | 62,861     | 422                           | May 17     |
| 1976         | 122,771                              | 79,084     | 62,554     | 418                           | May 14     |
| 1977         | 54,108                               | 35,505     | 28,394     | 213                           | January 25 |
| 1963-77 Avg. | 103,478                              | 71,220     | 58,714     | 468                           |            |

## LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

| VANCOUVER<br>GAGE<br>(Weather Bu) | FLOW AT<br>THE DALLES<br>(1,000 cfs) | DRAINAGE DISTRICT PUMPHOUSE |             |           |           |         |        |         |
|-----------------------------------|--------------------------------------|-----------------------------|-------------|-----------|-----------|---------|--------|---------|
|                                   |                                      | SANDY                       | SAUVIE ISL. | SCAPPOOSE | DEER ISL. | RAINIER | BEAVER | WOODSON |
|                                   |                                      | RIVER MILES                 |             |           |           |         |        |         |
|                                   |                                      | 118.9                       | 96.0        | 91.0      | 77.0      | 62.0    | 52.0   | 47.0    |
| 35 (1894)                         | 1210                                 | 41.2                        | 34.2        | 33.3      | 28.5      | 21.9    | 17.5   | 15.5    |
| 34                                | 1160                                 | 40.5                        | 33.5        | 32.5      | 27.7      | 21.2    | 17.0   | 15.0    |
| 33                                | 1100                                 | 39.6                        | 32.4        | 31.4      | 26.7      | 20.2    | 16.1   | 14.3    |
| 32 (1972)                         | 1050                                 | 38.9                        | 31.5        | 30.5      | 25.7      | 19.5    | 15.4   | 13.7    |
| 31 (1948)                         | 1000                                 | 38.0                        | 30.7        | 29.5      | 25.1      | 18.8    | 14.7   | 13.0    |
| 30                                | 943                                  | 36.6                        | 29.5        | 28.5      | 24.3      | 18.1    | 14.0   | 12.4    |
| 29                                | 897                                  | 35.5                        | 28.5        | 27.7      | 23.7      | 17.5    | 13.4   | 11.8    |
| 28                                | 853                                  | 34.3                        | 27.5        | 26.7      | 22.8      | 17.0    | 13.0   | 11.4    |
| 27 (1956)                         | 811                                  | 33.0                        | 26.5        | 25.6      | 21.8      | 16.2    | 12.5   | 11.0    |
| 26 (1950)                         | 771                                  | 32.1                        | 25.5        | 24.6      | 20.9      | 15.5    | 12.2   | 10.7    |
| 25                                | 733                                  | 30.7                        | 24.2        | 23.2      | 19.7      | 14.6    | 11.7   | 10.3    |
| 24                                | 697                                  | 29.7                        | 23.0        | 22.2      | 19.0      | 14.1    | 11.4   | 10.2    |
| 23                                | 662                                  | 29.0                        | 22.3        | 21.4      | 18.4      | 13.6    | 11.2   | 10.0    |
| 22                                | 628                                  | 28.1                        | 21.4        | 20.3      | 17.2      | 13.0    | 10.9   | 9.7     |
| 21                                | 595                                  | 27.2                        | 20.7        | 19.5      | 16.4      | 12.6    | 10.6   | 9.6     |
| 20 (1954)                         | 564                                  | 26.2                        | 19.8        | 18.6      | 15.5      | 12.1    | 10.2   | 9.4     |
| 19                                | 534                                  | 25.5                        | 19.2        | 18.0      | 15.0      | 11.8    | 10.0   | 9.3     |
| 18                                | 501                                  | 24.4                        | 18.3        | 17.2      | 14.3      | 11.4    | 9.8    | 9.1     |
| 17                                | 479                                  | 23.4                        | 17.4        | 16.4      | 13.7      | 11.0    | 9.6    | 8.9     |
| 16                                | 452                                  | 22.4                        | 16.5        | 15.5      | 13.0      | 10.5    | 9.3    | 8.7     |



Near average winter supplies are expected in all the Willamette watersheds this spring and summer. January's warm temperatures caused a premature snowmelt and is reflected in the snowpack averages. They range from a low of 44% in the Clackamas drainage to 92% in the Middle Fork of the Willamette drainage. The precipitation was only 41% of normal during January and 87% for the winter season. Much of the spring and summer streamflow results from spring precipitation so the streamflow forecast ranges from 90 to 103 percent of average.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT            | THIS YEAR          |                    |                 | PAST RECORD        |           |
|--|--------------------|--------------------|-----------------|--------------------|-----------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |           |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average C |
| Clackamas at Estacada                          | 557                | 96                 | April-July      |                    | 580       |
|  | 708                | 96                 | April-Sept.     |                    | 736       |
| Clackamas above Three Lynx                     | 451                | 91                 | April-July      |                    | 495       |
|  | 542                | 92                 | April-Sept.     |                    | 587       |
| McKenzie at McKenzie Bridge                    | 421                | 96                 | April-July      |                    | 440       |
|  | 562                | 96                 | April-Sept.     |                    | 585       |
| McKenzie near Vida                             | 1,023              | 103                | April-July      |                    | 994       |
|  | 1,255              | 103                | April-Sept.     |                    | 1,223     |
| McKenzie, South Fork near Rainbow              | 178                | 88                 | April-July      |                    | 202       |
|  | 206                | 90                 | April-Sept.     |                    | 229       |
| Mohawk River near Springfield                  | 155                | 93                 | Feb.-July       |                    | 166       |
| Oak Gorge Fork above Power Intake              | 123                | 94                 | April-July      |                    | 131       |
|  | 158                | 95                 | April-Sept.     |                    | 167       |
| Row near Dorena                                | 92                 | 93                 | April-July      |                    | 99        |
|  | 97                 | 93                 | April-Sept.     |                    | 104       |
| Santiam, North at Mehama                       | 680                | 93                 | April-July      |                    | 731       |
|  | 786                | 94                 | April-Sept.     |                    | 838       |
| Santiam, South at Waterloo                     | 497                | 93                 | April-July      |                    | 534       |
|  | 538                | 93                 | April-Sept.     |                    | 578       |
| Scoggins Creek near Gaston                     | 39                 | 87                 | Feb.-July       |                    | 45        |
| Thomas Creek near Scio                         | 156                | 98                 | Feb.-July       |                    | 159       |
| Willamette, Coast Fork near London             | 27                 | 96                 | April-July      |                    | 28        |
| Willamette, Middle Fork below North Fork       | 635                | 95                 | April-July      |                    | 668       |
| near Oakridge                                  | 726                | 95                 | April-Sept.     |                    | 764       |
| Willamette, No. Fork of Mid Fork near Oakridge | 173                | 95                 | April-July      |                    | 182       |
|  | 194                | 95                 | April-Sept.     |                    | 204       |
| Willamette at Salem                            | 4,263              | 92                 | April-Sept.     |                    | 4,655     |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |           |
|----------------------------------|----------------------------|--------------------------------------|-----------|
|                                  |                            | Last Year                            | Average C |
| Clackamas River                  | 1                          | 56                                   | 44        |
| McKenzie River                   | 3                          | 121                                  | 69        |
| Row River                        | 2                          | 84                                   | 67        |
| Santiam River                    | 2                          | 100                                  | 68        |
| Willamette, Mid Fork             | 4                          | 108                                  | 92        |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR   | Usable Capacity | Usable Storage |           |           |
|---|-----------------|----------------|-----------|-----------|
|   |                 | This Year      | Last Year | Average C |
| Blue River  | 85.6*           | 4.4            | 2.2       | 11.6      |
| Cottage Grove   | 30.0*           | 1.7            | 0.3       | 2.5       |
| Cougar  | 155.2*          | 15.1           | 8.1       | 22.1      |
| Detroit   | 299.9*          | 34.9           | 20.1      | 47.1      |
| Dorena  | 70.5*           | 4.9            | 1.1       | 10.8      |
| Fall Creek  | 115.0*          | 8.2            | 1.2       | 10.8      |
| Fern Ridge  | 94.2*           | 9.9            | 5.2       | 18.8      |
| Foster  | 30.0*           | 1.2            | 0.4       | 1.2       |
| Green Peter   | 270.0*          | 35.4           | 21.3      | 41.3      |
| Hills Creek   | 200.0*          | 15.2           | 20.4      | 33.0      |
| Lookout Point   | 337.2*          | 27.1           | 24.8      | 47.5      |
| Timothy Lake  | 61.7            | 55.1           | 57.9      | 50.5      |
| Henry Hagg Lake   | 53.0            | 30.8           | 31.9      | 32.3      |
| *Multiple purpose reservoir--space reserved primarily for flood runoff. |                 |                |           |           |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## ROGUE, UMPQUA, WATERSHEDS

### OREGON

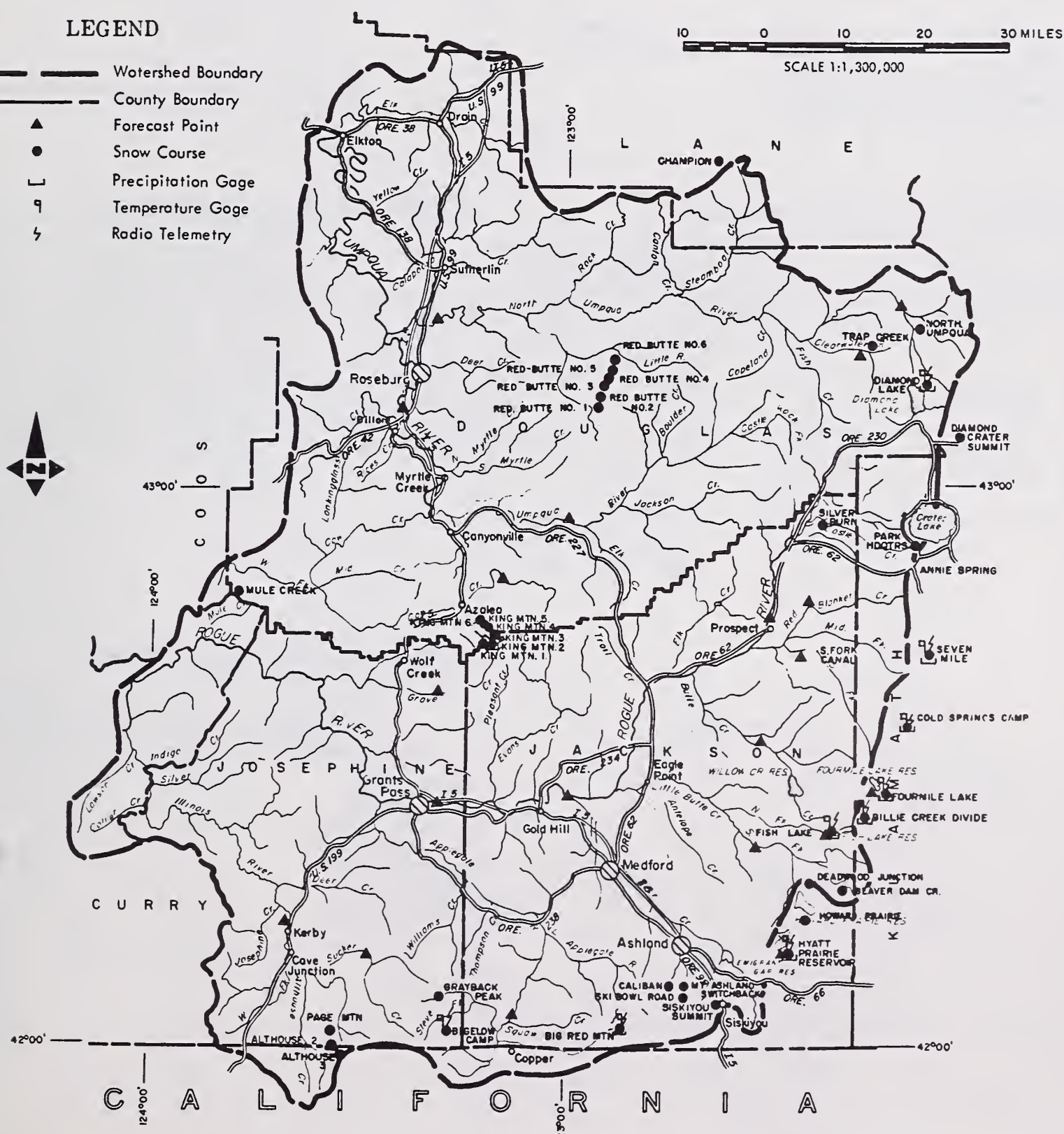
#### GENERAL OUTLOOK

Water supplies will range from near to above normal this summer. The snowpack varies widely throughout the area. It ranges from 51% of normal on the Illinois to 130% on Butte Creek. January precipitation was only 19% of average but is near normal for the winter season. February 1 reservoir storage was above average for most irrigation reservoirs. Streamflow will recede a couple of days early this summer except for the South Fork of Little Butte Creek which will run about 11 days longer than normal. Streamflow on the Rogue is forecast to be 113% of normal and 96% on the North Umpqua.

#### LEGEND

- Watershed Boundary
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- └ Precipitation Gage
- 9 Temperature Gage
- ⚡ Radio Telemetry

10 0 10 20 30 MILES  
SCALE 1:1,300,000



# STREAMFLOW FORECASTS

| STREAMFLOW FORECASTS                           | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
| BASIN, STREAM and/or FORECAST POINT            | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Applegate near Copper                          | 121                | 98                 | April-Sept.     |                    | 123                  |
| Big Butte Creek, So. Fork near Butte Falls     | 37                 | 109                | April-July      |                    | 34                   |
| Clearwater above Trap Creek                    | 70                 | 103                | April-Sept.     |                    | 68                   |
| Cow Creek near Azalea                          | 36                 | 84                 | Feb.-July       |                    | 43                   |
| Fourmile Lake net Inflow                       | 6.0                | 150                | April-Sept.     |                    | 4.0 b                |
| Grave Creek at Pease Bridge near Placer        | 16.8               | 80                 | Feb.-July       |                    | 21                   |
| Hyatt Reservoir net Inflow                     | 6.3                | 134                | April-July      |                    | 4.7                  |
| Illinois River near Kerby                      | 162                | 90                 | April-July      |                    | 180                  |
|  | 170                | 91                 | April-Sept.     |                    | 187                  |
| Little Butte, N.Fk. at Fish Lake near Lake Cr. | 16.9               | 128                | April-Sept.     |                    | 13.2 b               |
| Little Butte, S. Fk. near Lake Creek           | 37                 | 128                | April-July      |                    | 29                   |
| Red Blanket Creek near Prospect                | 37                 | 109                | April-July      |                    | 34                   |
| Rogue above Prospect                           | 238                | 97                 | April-July      |                    | 245                  |
| Rogue, South Fork near Prospect                | 66                 | 112                | April-July      |                    | 59                   |
|  | 78                 | 111                | April-Sept.     |                    | 70                   |
| Rogue at Raygold near Central Point            | 775                | 107                | April-July      |                    | 722                  |
|  | 943                | 107                | April-Sept.     |                    | 880                  |
| Rogue at Grants Pass                           | 841                | 115                | April-July      |                    | 733                  |
|  | 988                | 113                | April-Sept.     |                    | 876                  |
| Sucker Cr. Blw. Little Grayback near Holland   | 43                 | 77                 | April-July      |                    | 56                   |
| Umpqua, No.blw. Lemolo Lake nr. Toketee Falls  | 180                | 115                | April-Sept.     |                    | 156                  |
| Umpqua, No. at Winchester                      | 720                | 96                 | April-July      |                    | 751                  |
| Umpqua, South near Brockway                    | 331                | 88                 | April-July      |                    | 377                  |
| Umpqua, South at Tiller                        | 172                | 96                 | April-July      |                    | 180                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT                 | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|--------------------------------|---------------------------|--|--------------------------------|
| Cow Creek near Azalea          | 20                        | June 29  | July 4                         |
|                                | 10                        | Aug. 15  | Aug. 19                        |
| Little Butte Creek, South Fork | 100                       | May 26   | May 15                         |
| South Umpqua near Brockway     | 90                        | Aug. 1   | July 30                        |
| South Umpqua at Tiller         | 140                       | July 7   | July 10                        |
|                                | 90                        | July 27  | July 30                        |
|                                | 60                        | Aug. 22  | Aug. 27                        |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR      | Usable Capacity | Usable Storage |           |                      |
|----------------|-----------------|----------------|-----------|----------------------|
|                |                 | This Year      | Last Year | Average <sup>c</sup> |
| Applegate      | 75.2            | 10.9           | 11.9      | --                   |
| Emigrant Lake  | 39.0            | 23.6           | 24.9      | 23.8                 |
| Fish Lake      | 8.0             | 6.2            | 6.2       | 5.5                  |
| Fourmile Lake  | 16.1            | 13.4           | 16.1      | 8.6                  |
| Howard Prairie | 60.0            | 57.3           | 46.2      | 40.7                 |
| Hyatt Prairie  | 16.1            | 14.6           | 13.0      | 11.0                 |
| Lost Creek     | 315.0           | 174.4          | 169.0     | --                   |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Applegate                        | 2                          | 55                                   | 101                  |
| Bear Creek                       | 2                          | 78                                   | 93                   |
| Butte Creek                      | 3                          | 87                                   | 130                  |
| Illinois River                   | 3                          | 40                                   | 51                   |
| North Umpqua                     | 3                          | 98                                   | 79                   |
| Rogue River                      | 3                          | 104                                  | 111                  |
| Mt. Ashland                      |                            |                                      |                      |

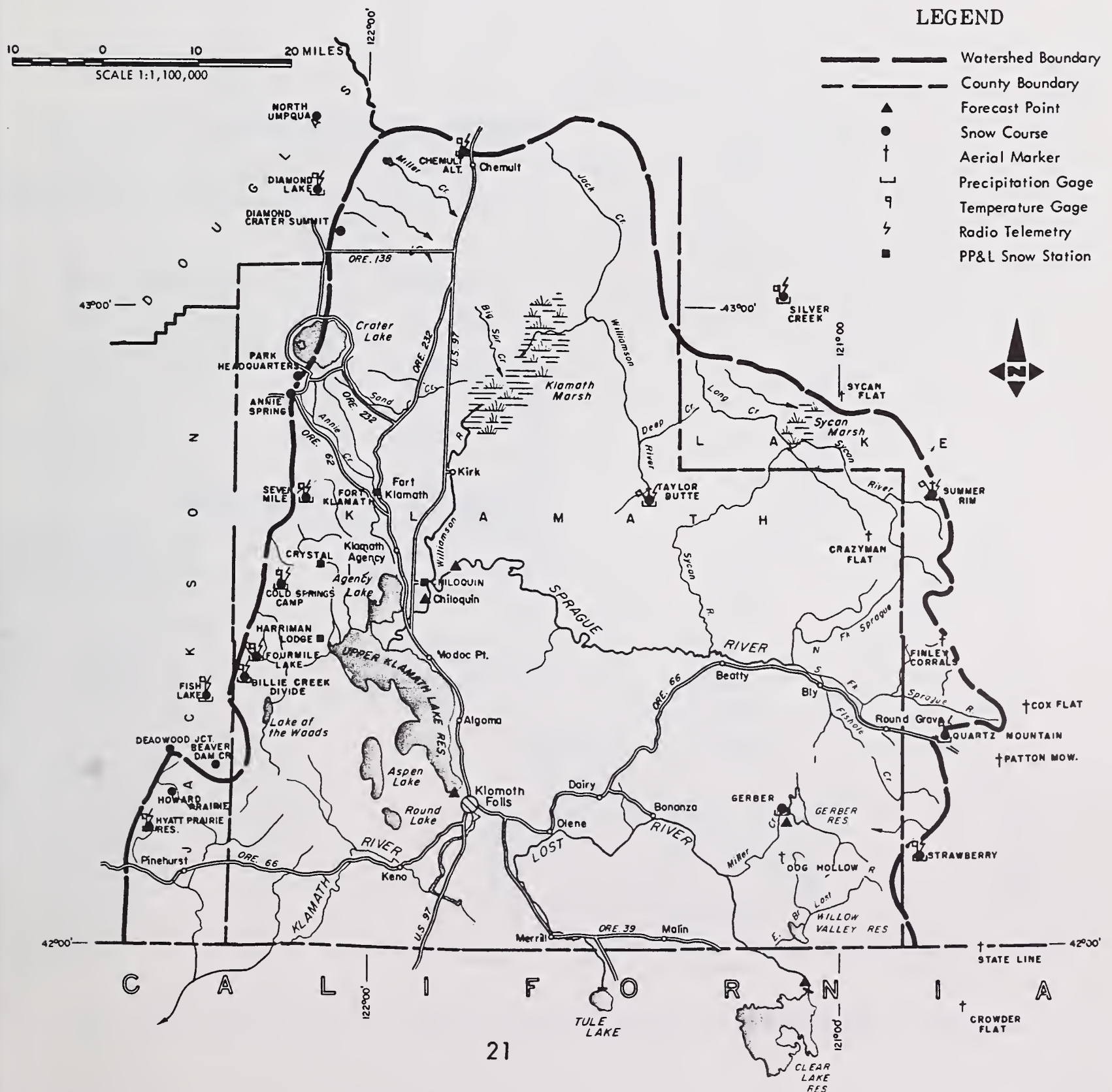
(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

## GENERAL OUTLOOK

Klamath County should experience above average water supplies this spring and summer. The mountain snowpack ranges from 111% of average in the Williamson basin to 175% in the Sprague basin. While January precipitation was very low (19% of average) it remains high for the winter season (121% of average). Reservoir storage remains above normal except for Upper Klamath Lake which is 94% of the February 1 average. All reservoirs should fill this year. Streamflow forecasts range from 115% of normal for the Williamson to 160% for the Sprague.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|----------------------|
|                                     | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>C</sup> |
| Clear Lake Reservoir Inflow         | 129                | 147                | Feb.-July       |                    | 88                   |
| Gerber Reservoir Inflow             | 58                 | 153                | Feb.-July       |                    | 38                   |
| Sprague near Chiloquin              | 518                | 160                | Feb.-Sept.      |                    | 324                  |
|                                     | 318                | 160                | April-Sept.     |                    | 199                  |
| Upper Klamath Lake net Inflow       | 932                | 111                | April-July      |                    | 841                  |
|                                     | 584                | 116                | April-Sept.     |                    | 502                  |
| Williamson below Sprague River      | 651                | 115                | Feb.-Sept.      |                    | 566                  |
|                                     | 445                | 115                | April-Sept.     |                    | 387                  |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR          | Usable Capacity | Usable Storage |           |                      |
|--------------------|-----------------|----------------|-----------|----------------------|
|                    |                 | This Year      | Last Year | Average <sup>C</sup> |
| Clear Lake         | 440.2           | 427.6          | 306.8     | 207.8                |
| Gerber             | 94.0            | 56.5           | 72.8      | 43.3                 |
| Upper Klamath Lake | 584.0           | 340.7          | 342.3     | 362.9                |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>C</sup> |
| Lost River                       | 4                          | 129                                  | 148                  |
| Sprague River                    | 2                          | 106                                  | 175                  |
| Upper Klamath                    | 4                          | 95                                   | 119                  |
| Williamson River                 | 3                          | 93                                   | 111                  |

(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



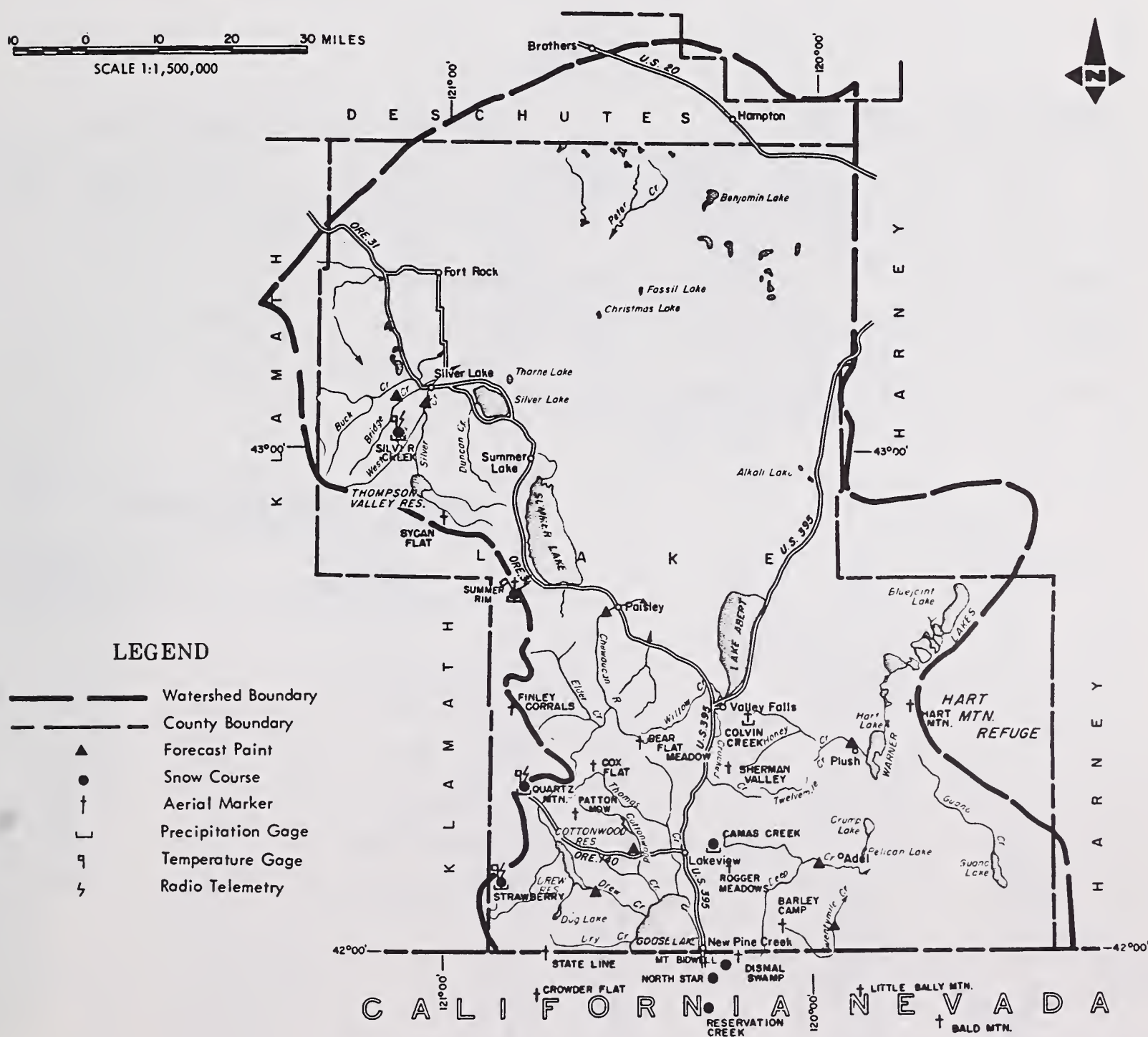
# WATER SUPPLY OUTLOOK

## LAKE COUNTY, GOOSE LAKE WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Spring and summer water supplies should be excellent for Lake County. The mountain snowpack is much above average. It ranges from  $1\frac{1}{2}$  times normal on Drew Creek to  $2\frac{1}{2}$  times on Twentymile Creek. January precipitation in Lake County was the lowest in the state at 15% of average. For the winter season, however, it remains above average at 112 percent. Reservoir storage is also above average and all reservoirs should fill this year. Streamflows should recede from 1 to 5 weeks later than normal this year. Streamflow forecasts range from 127% of normal for Honey Creek to 219% for Twentymile Creek.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT            | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Bridge Creek near Spahr Ranch near Silver Lake | 5.5                | 157                | April-July      |                    | 3.5                  |
| Chewaucan near Paisley                         | 118                | 144                | March-July      |                    | 82                   |
| Cottonwood Creek near Lakeview                 | 14.5               | 134                | March-July      |                    | 10.8                 |
| Deep above Adel                                | 105                | 138                | March-July      |                    | 76                   |
| Drews Reservoir net Inflow                     | 57                 | 133                | March-July      |                    | 43 b                 |
| Honey Creek near Plush                         | 24                 | 127                | March-July      |                    | 18.9                 |
| Silver Creek near Silver Lake                  | 25                 | 174                | April-July      |                    | 14.4 b               |
| Twentymile Creel near Adel                     | 57                 | 219                | March-July      |                    | 26                   |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT       | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|----------------------|---------------------------|--|--------------------------------|
| Deep Cr. above Adel  | 100                       | July 17  | June 21                        |
| Honey Cr. near Plush | 100<br>50                 | May 22<br>June 9                                   | May 15<br>May 30               |
| Twentymile near Adel | 50<br>10                  | July 14<br>Aug. 15                                 | June 2<br>July 3               |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR       | Usable Capacity | Usable Storage |           |                      |
|-----------------|-----------------|----------------|-----------|----------------------|
|                 |                 | This Year      | Last Year | Average <sup>c</sup> |
| Cottonwood      | 8.7             | 3.2            | 3.7       | 2.9                  |
| Drews           | 63.0            | 50.3           | 43.3      | 34.2                 |
| Thompson Valley | 19.5            | 16.1           | 16.4      | 13.3                 |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Chewaucan River                  | 2                          | 106                                  | 175                  |
| Deep Creek                       | 4                          | 125                                  | 161                  |
| Drew Creek                       | 2                          | 99                                   | 152                  |
| Honey Creek                      | 3                          | 87                                   | 157                  |
| Silver Creek                     | 3                          | 140                                  | 193                  |
| Twentymile Creek                 | 3                          | 100                                  | 251                  |

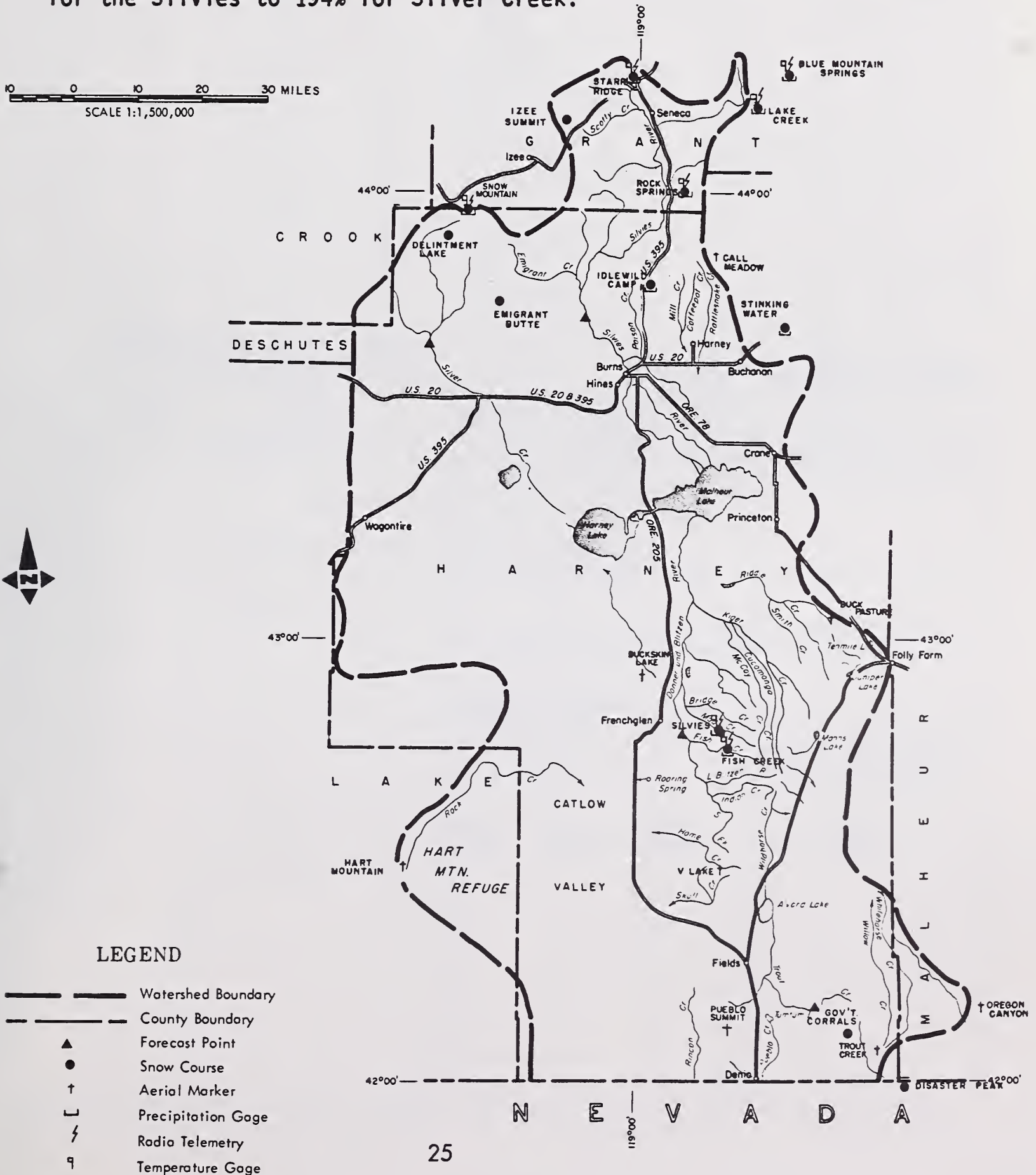
(a) Estimated. (b) 1961-80 adjusted average. (c) 1961-80, 20 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

## GENERAL OUTLOOK

Abundant water supplies are forecast for this spring and summer in Harney County. The snowpack remains high at  $1\frac{1}{2}$  times to twice normal. January precipitation was only 19% of average but it remains high (121 percent) for the winter season. Streamflows will recede about two weeks later than normal. Streamflows range from 131% of average for the Silvies to 194% for Silver Creek.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR          |                    | PAST RECORD        |                                     |
|-------------------------------------|--------------------|--------------------|--------------------|-------------------------------------|
|                                     | FORECAST           |                    | THOUSAND ACRE FEET |                                     |
|                                     | Thousand Acre Feet | Percent of Average | FORECAST PERIOD    | Last Year      Average <sup>c</sup> |
| Donner und Blitzen near Frenchglen  | 84                 | 135                | April-July         | 62                                  |
|                                     | 78                 | 132                | April-Sept.        | 59                                  |
| Silver near Riley                   | 30                 | 194                | April-July         | 15.5                                |
| Silvies River near Burns            | 137                | 141                | March-July         | 97                                  |
|                                     | 101                | 131                | April-Sept.        | 77                                  |
| Trout Creek near Denio              |                    |                    | March-July         | 93                                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT   | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|--|---------------------------|--|--------------------------------|
| Silvies near Burns                                     | 400                       | May 13   | May 5                          |
|  | 200                       | June 1   | May 21                         |
|  | 100                       | June 18  | June 9                         |
|  | 50                        | July 4   | June 23                        |
| Donner und Blitzen                                     | 200                       | June 30  | June 15                        |
|  | 100                       | July 17  | July 5                         |
| -----  |                           |  |                                |
| -----  |                           |  |                                |
| Malheur Lake at Break in Cole Island Dike near Voltage | <u>GAGE HEIGHT</u>        | <u>SURFACE ACRES</u>                               | <u>AVG. SURFACE ACRES</u>      |
|  |                           |  |                                |
|  |                           |  |                                |
| July 1   | 4100.56                   | 109,000  | 40,000                         |
| August 1   | 4100.07                   | 106,000  | 33,000                         |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Donner und Blitzen               | 2                          | 125                                  | 165                  |
| Silver Creek                     | 2                          | 116                                  | 185                  |
| Silvies River                    | 4                          | 113                                  | 146                  |
| Trout Creek                      | -                          | --                                   | --                   |

(a) Estimated. (b)

adjusted average. (c)

year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE | THIS YEAR      |                  |                   | PAST RECORD            |        |
|-----------------------------------|----------------|------------------|-------------------|------------------------|--------|
|                                   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|                                   |                |                  |                   | Last Yr.               | Ave. ° |

|                                     |           |        |       |       |       |
|-------------------------------------|-----------|--------|-------|-------|-------|
| OWYHEE MALHEUR WATERSHEDS<br>AREA 1 |           |        |       |       |       |
| Antelope Ridge (Ida.)               | Late      | Report |       |       |       |
| Battle Creek (Ida.) *               | Late      | Report |       |       |       |
| Bear Creek (Nev.)                   | 2/1       |        | 22.7  | 14.8  | 13.8b |
| Big Bend (Nev.)                     | e         |        |       | 6.7   | 6.0   |
| Blue Mountain Springs               | 1/26      | 46     | 15.2  | 14.5  | 11.4  |
| Blue Mtn. Spgs. Plw. (T)            | 2/1       | --     | 8.8   | 17.3  | --    |
| Boulder Creek *                     | Late      | Report |       |       |       |
| Buck Pature *                       | Late      | Report |       |       |       |
| Buckskin, Lower (Nev.)              | 2/1       | --     | 13.5  | 8.5a  | --    |
| Buckskin, Upper (Nev.)              | e         |        |       |       |       |
| Bull Basin (Ida.) *                 | Late      | Report |       | --    | 1.4   |
| Bully Creek *                       | Late      | Report |       | --    | 2.0b  |
| Call Meadows *                      | Late      | Report |       | --    | 2.5b  |
| Columbia Basin (Nev.)               | 1/26      | 54     | 18.4  | 8.6   | 7.0b  |
| Disaster Peak (Nev.)                | No Report |        |       | 14.4a | --    |
| Eldorado Pass                       | 1/30      | 22     | 6.0   | 3.1   | 3.0   |
| Fawn Creek (Nev.)                   | 1/26      | 58     | 19.7  | --    | 4.8b  |
| Fish Creek (Rev.)                   | 1/25      | 73     | 26.2  | 21.0  | --    |
| Fish Creek Pillow (T)               | 2/1       | --     | 12.4  | 28.0  | --    |
| Flag Prairie *                      | Late      | Report |       | --    | 3.7   |
| Fox Creek (Nev.)                    | e         |        |       | --    | --    |
| Fry Canyon (Nev.)                   | 1/31      | 34     | 12.0  | 7.7   | 5.0   |
| Gold Creek (Nev.)                   | e         |        |       | 4.6   | 3.9   |
| Government Corrals                  | 1/31      | 48     | 18.0  | 11.5  | --    |
| Granite Peak (Nev.)                 | e         |        |       | 16.2  | 10.8b |
| Hyde Pasture (Ida.) *               | Late      | Report |       | --    | 4.4   |
| Jack Creek, Lower (Nev.)            | e         |        |       |       |       |
| Jack Creek, Upper (Nev.)            | 2/1       | 66     | 21.7  | 8.8   | 4.8   |
| Jacks Peak (Nev.)                   | e         |        |       | 20.3  | 11.0b |
| Johnston Pond (Ida.) *              | Late      | Report |       |       |       |
| Lake Creek R.S.                     | 1/26      | 37     | 11.8  | 10.4  | 7.6   |
| Lake Creek R.S. Plw. (T)            | 2/1       | --     | 16.0  | 13.5  | --    |
| Laurel Draw (Nev.)                  | 2/1       | 43     | 14.5a | 7.1   | 5.2   |
| Lookout Butte *                     | Late      | Report |       |       |       |
| Louse Canyon *                      | Late      | Report |       | 10.5  | 2.6b  |
| Martin Creek (Nev.)                 | e         |        |       |       | 7.4b  |
| Merritt Mountain (Nev.) *           | 1/26      | 36     | 12.2  | 4.7   | 4.2b  |
| Midas (Nev.) *                      | e         |        |       | 6.1   | 2.4b  |
| Mud Flat (Ida.)                     | e         |        |       |       | 4.2b  |
| Oregon Canyon *                     | Late      | Report |       |       | 4.0b  |
| Quinn Ridge (Nev.) *                | No Report |        |       | 2.0   | 1.3b  |
| Red Canyon (Ida.) *                 | e         |        |       |       | 5.8   |
| Rock Springs                        | 1/25      | 29     | 8.4   | 6.9   | 4.2   |
| Rock Spgs. Plw. (T)                 | No Report |        |       | 7.2   | --    |
| Rodeo Flat (Nev.)                   | 1/31      | 39     | 13.0  | 8.4   | 4.1   |
| 76 Creek (Nev.) *                   | e         |        |       | 9.9   | 7.6   |
| Silver City (Ida.) *                | e         |        |       | 15.4  | --    |
| Silver City (Ida.)                  | e         |        |       |       | 10.0  |
| Silvies                             | 1/25      | 40     | 14.5  | 11.5  | 6.1b  |
| Silvies Pillow (T)                  | 2/1       | --     | 15.3  | --    | --    |
| South Mountain #2 (Ida.)            | 1/29      | 51     | 17.0  | 15.4  | 9.4   |
| South Mtn. #2 Plw. (T)              | 2/1       | --     | 22.9  | 20.6  | --    |
| Stag Mountain (Nev.) *              | 1/26      | 38     | 12.5  | 6.7   | 3.8b  |
| Stinking Water                      | e         |        |       | 4.3   | 2.2   |
| Succor Creek (Ida.) *               | e         |        |       | 9.6   | 3.7   |
| Taylor Canyon (Nev.)                | 1/31      | 32     | 12.1  | 6.7   | 9.0   |
| Toe Jam (Nev.) *                    | 1/26      | 48     | 16.3  | 10.1  | 6.7   |
| Tremewan Ranch (Nev.) *             | 1/31      | 18     | 5.6   | 2.5   | 1.2   |
| Trout Creek *                       | Late      | Report |       | --    | 4.9   |
| "V" Lake *                          | Late      | Report |       | --    | 4.0   |
| Vaught Ranch (Ida.) *               | e         |        |       | --    | 3.9b  |
| War Eagle (Ida.) *                  | e         |        |       | 25.5  | 18.6b |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE | THIS YEAR      |                  |                   | PAST RECORD            |        |
|-----------------------------------|----------------|------------------|-------------------|------------------------|--------|
|                                   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|                                   |                |                  |                   | Last Yr.               | Ave. ° |

|   |           |     |       |       |       |
|---|-----------|-----|-------|-------|-------|
| BURNT, POWDER, PINE, IMNAHA<br>GRANDE RONDE WATERSHEDS<br>AREA 2              |           |     |       |       |       |
| Aneroid Lake #2   | No Report |     |       | 22.8  | 21.6  |
| Aneroid Lake #2 Plw. (T)  | 2/1       | --  | 15.6  | 19.2  | --    |
| Anthony Lake  | e         |     |       | 18.2  | 17.3  |
| Bald Mountain (OR) *  | 1/27      | 63  | 18.9  | 15.8  | 15.9  |
| Beaver Reservoir (Rev.)   | 1/27      | 34  | 9.0   | 7.2   | 8.7   |
| Beaver Res. Pillow (T)  | 2/1       | --  | 10.9  | 6.1   | --    |
| Big Sheep *   | 1/27      | 66  | 19.7  | 21.0  | 18.9  |
| Blue Mtn. Summit (DISC.82)  | 2/1       |     | 8.6a  | 7.9a  | 6.6   |
| Bourne  | 1/26      | 50  | 14.0  | 13.7  | 11.1  |
| Bourne Pillow (T)   | 2/1       | --  | 15.9  | 16.7  | --    |
| County Line (Rev.)  | 1/30      | 14  | 4.6   | 3.6   | 3.7   |
| County Line Pillow (T)  | 2/1       | --  | 5.1   | 4.5   | --    |
| Dooley Mountain (DISC.82)   | 1/26      |     | 6.7a  | 7.3a  | 6.4   |
| Eilertson Meadows   | 1/26      | 33  | 9.2   | 10.0  | 8.3   |
| Eilertson Meadows Plw. (T)  | 2/1       | --  | 10.7  | 8.9   | --    |
| Eldorado Pass   | 1/30      | 22  | 6.0   | 3.1   | 3.0   |
| Gold Center (Rev.)  | 1/26      | 35  | 10.1  | 10.8  | 9.2   |
| Gold Center Pillow (T)  | 2/1       | --  | 10.1  | 11.2  | --    |
| Goodrich Lake (DISC.82)   | 1/26      |     | 28.6a | --    | 27.2b |
| Little Alps   | e         |     | 10.0  | 8.8   |       |
| Little Antone (Alt.)  | e         |     | 8.5   | 5.7b  |       |
| Lucky Strike  | 1/30      | 25  | 7.0   | 8.3   | 8.2   |
| Lucky Strike Pillow (T)   | 2/1       | --  | 8.5   | 11.0  | --    |
| Mirror Lake *   | 1/27      | 154 | 47.7  | 40.9  | 46.6  |
| Moss Spring   | 1/27      | 51  | 16.0  | 14.6  | 15.4  |
| Moss Spring Pillow (T)  | 2/1       | --  | 17.1  | 16.2  | --    |
| Mt. Howard Pillow (T)   | 1/31      | --  | 14.2  | 5.8   | --    |
| Schneider Meadow  | 1/27      | 68  | 21.8  | 21.0  | 22.1  |
| Schneider Meadow Plw. (T)   | 2/1       | --  | 22.5  | 28.1  | --    |
| Standley *  | 1/27      | 56  | 16.2  | 20.2  | 19.6  |
| Taylor Green (DISC. 83)   | 2/1       | --  | 13.0a | 16.0  | 12.1  |
| Taylor Green Pillow (T)   | 2/1       | --  | 9.2   | 17.4  | --    |
| Tipton  | 1/26      | 32  | 10.3  | 9.4   | 8.0   |
| Tipton Pillow (T)   | 2/1       | --  | 15.4  | 14.6  | --    |
| TV Ridge *  | 1/27      | 33  | 9.6   | 14.0  | 12.2b |
| West Eagle Meadows *  | 1/27      | 70  | 21.7  | 25.8  | 16.0b |
| Wolf Creek Pillow (T)   | 2/1       | --  | 16.4  | 14.4  | --    |
| UMATILLA, WALLA WALLA,<br>ROCK, LOWER JOHN DAY<br>WILLOW WATERSHEDS<br>AREA 3 |           |     |       |       |       |
| Arbuckle Mountain   | 1/30      | 22  | 7.2   | 9.1   | 9.1   |
| Arbuckle Mountain Plw. (T)  | 2/1       | --  | 14.3  | 21.8  | --    |
| Blue Mountain Camp(DISC.82)   | 1/31      |     | 9.3a  | 11.0a | 12.1  |
| Bowman Springs Plw. (T)   | 2/1       | --  | 7.2   | 7.8   | --    |
| Butte Creek Summit  | e         |     |       |       |       |
| Emigrant Springs (Rev.)   | 1/30      | 12  | 4.0   | 3.6   | 3.8   |
| Emigrant Springs Plw. (T)   | No Report |     |       | 6.3   | --    |
| High Ridge Pillow (T)   | 2/1       | --  | 17.8  | 22.4  | --    |
| Lucky Strike  | 1/30      | 25  | 7.0   | 8.3   | 8.2   |
| Lucky Strike Pillow (T)   | 2/1       | --  | 8.5   | 11.0  | --    |
| Madison Butte Pillow (T)  | 2/1       | --  | 5.1   | 6.7   | --    |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE                | THIS YEAR      |                  |                   | PAST RECORD            |        |
|--|----------------|------------------|-------------------|------------------------|--------|
|  | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|  |                |                  |                   | Last Yr.               | Ave. C |
| UPPER JOHN DAY WATERSHEDS<br>AREA 4              |                |                  |                   |                        |        |
| Anthony Lake                                     | e              |                  |                   | 18.2                   | 17.3   |
| Arbuckle Mountain                                | 1/30           | 22               | 7.2               | 9.1                    | 7.1    |
| Arbuckle Mountain Plw. (T)                       | 2/1            | --               | 14.3              | 21.8                   | --     |
| Blue Mountain Springs                            | 1/26           | 46               | 15.2              | 14.5                   | 11.4   |
| Blue Mtn. Spgs. Plw. (T)                         | 2/1            | --               | 8.8               | 17.3                   | --     |
| Blue Mountain Sum.(DISC.82)                      | 2/1            | --               | 8.6a              | 7.9a                   | 6.6    |
| Butte Creek Summit                               | e              |                  |                   | --                     | --     |
| Derr   | 1/25           | 34               | 11.8              | 11.8                   | 6.9    |
| Derr Pillow (T)                                  | 2/1            | --               | 13.6              | 17.8                   | --     |
| Gold Center (Rev.)                               | 1/26           | 35               | 10.1              | 10.8                   | 9.2    |
| Gold Center Plw. (T)                             | 2/1            | --               | 8.8               | 11.2                   | --     |
| Izee Summit (DISC. 82)                           | 1/25           |                  | 8.3a              | 7.2a                   | 5.6    |
| Lucky Strike                                     | 1/30           | 25               | 7.0               | 8.3                    | 8.2    |
| Lucky Strike Pillow (T)                          | 2/1            | --               | 8.5               | 11.0                   | --     |
| Marks Creek                                      | 1/27           | 19               | 6.4               | 3.8                    | 2.6    |
| Ochoco Meadows                                   | 1/26           | 34               | 11.1              | 9.1                    | 6.7    |
| Ochoco Meadows Plw. (T)                          | 2/1            | --               | 10.0              | 9.6                    | --     |
| Snow Mountain (DISC. 82)                         | 2/1            |                  | 18.5a             | 16.1a                  | 9.4b   |
| Snow Mountain Plw. (T)                           | 2/1            | --               | 15.2              | 13.0                   | --     |
| Starr Ridge (Rev.)                               | 1/25           | 27               | 7.2               | 6.1                    | 4.4    |
| Starr Ridge Plw. (T)                             | 1/31           | --               | 9.4               | 8.1                    | --     |
| Tipton   | 1/26           | 32               | 10.3              | 9.4                    | 8.0    |
| Tipton Pillow (T)                                | 2/1            | --               | 15.4              | 14.6                   | --     |
| UPPER DESCHUTES, CROOKED<br>WATERSHEDS<br>AREA 5 |                |                  |                   |                        |        |
| Bald Peter                                       | 1/25           | 58               | 19.6              | 26.4                   | 18.8b  |
| Beaver Creek #1                                  | 1/26           | 30               | 10.0              | 6.4                    | --     |
| Beaver Creek #2                                  | 1/26           | 21               | 6.2               | 4.4                    | --     |
| Caldwell Ranch (DISC. 82)                        | 1/31           |                  | 9.5a              | 8.5a                   | 7.3    |
| Cascade Summit                                   | e              |                  |                   | 18.6                   | 18.6   |
| Cascade Summit Plw. (T)                          | 2/1            | --               | 23.3              | 21.4                   | --     |
| Chemult Alternate                                | 2/1            | 39               | 11.3              | 12.3                   | 8.9    |
| Chemult Alt. Plw. (T)                            | 2/1            | --               | 11.0              | 8.3                    | --     |
| Derr   | 1/25           | 34               | 11.8              | 11.8                   | 6.9    |
| Derr Pillow (T)                                  | 2/1            | --               | 13.6              | 17.8                   | --     |
| Hogg Pass (DISC. 83)                             | 2/1            |                  | 20.2a             | 22.2                   | 25.3   |
| Hogg Pass Pillow (T)                             | 2/1            | --               | 22.4              | 20.6                   | --     |
| Hungry Flat                                      | 2/1            | 10               | 3.6               | 2.1                    | 4.5    |
| Irish-Taylor Pillow (T)                          | 2/1            | --               | 16.6              | 21.1                   | --     |
| Lionshead *                                      | 2/1            | 24               | 7.2               | --                     | 7.3b   |
| Marks Creek                                      | 1/27           | 19               | 6.4               | 3.8                    | 2.6    |
| New Crescent                                     | 1/31           | 38               | 12.8              | 11.4                   | 9.4    |
| New Crescent Lake Plw. (T)                       | 2/1            | --               | 12.4              | 10.4                   | --     |
| New Dutchman Flat #2                             | 2/1            | 87               | 35.8              | 35.7                   | 33.4   |
| Ochoco Meadows                                   | 1/26           | 34               | 11.1              | 9.1                    | 6.7    |
| Ochoco Meadows Plw. (T)                          | 2/1            | --               | 10.0              | 9.6                    | --     |
| Racing Creek                                     | 1/25           | 33               | 10.2              | 10.8                   | 7.1b   |
| Snow Mountain (DISC. 82)                         | 2/1            |                  | 18.5a             | 16.1a                  | 9.4b   |
| Snow Mountain Plw. (T)                           | 2/1            | --               | 15.2              | 13.0                   | --     |
| Summit Lake Pillow (T)                           | 2/1            | --               | 29.6              | 23.3                   | --     |
| Tamarack (DISC. 82)                              | 1/27           |                  | 6.9a              | 5.1a                   | 4.2    |
| Tangent  | No Report      |                  |                   |                        |        |
| Three Creek Butte                                | 1/27           | 27               | 8.8               | 7.1                    | 7.8    |
| Three Creek Meadow                               | 1/27           | 35               | 11.5              | 12.7                   | 11.6   |
| Three Creek Mdw. Plw. (T)                        | 2/1            | --               | 16.7              | 12.7                   | 12.8   |
| Whitewater Meadow *                              | 2/1            | 4                | 1.2               | --                     | 4.2b   |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE                   | THIS YEAR      |                  |                   | PAST RECORD            |        |
|---|----------------|------------------|-------------------|------------------------|--------|
|   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|   |                |                  |                   | Last Yr.               | Ave. C |
| HOOD, MILE CREEK, LOWER DESCHUTES WATERSHEDS AREA 6 |                |                  |                   |                        |        |
| Brooks Meadow                                       | e              |                  |                   | --                     | --     |
| Clear Lake  | e              |                  |                   | 3.8                    | 6.5    |
| Clear Lake Pillow (T)                               | 2/1            | --               | 8.4               | 9.2                    | --     |
| Clear Lake Expt.                                    | e              |                  |                   | 6.6                    | 10.4   |
| Greenpoint  | e              |                  |                   | 8.8                    | 11.1   |
| Greenpoint Pillow (T)                               | 2/1            | --               | 9.9               | 14.4                   | --     |
| High Prairie  | 1/30           | 67               | 26.8              | --                     | --     |
| Mt. Hood Test Site (T)                              | 2/1            | --               | 36.8              | 40.0                   | 43.3b  |
| Mud Ridge Pillow (T)                                | 2/1            | --               | 12.6              | 14.5                   | --     |
| Red Hill  | 1/31           | 45               | 20.1              | 18.0                   | 24.0   |
| Red Hill Pillow (T)                                 | 2/1            | --               | 33.2              | 24.1                   | --     |
| Switchback (DISC. 82)                               | 2/1            |                  | 13.4a             | 8.2a                   | 11.5   |
| Tilly Jane (DISC. 82)                               | 1/31           |                  | 21.0a             | 19.3a                  | 26.7   |
| LOWER COLUMBIA WATERSHED AREA 7                     |                |                  |                   |                        |        |
| Blazed Alder Pillow (T)                             | No Report      |                  |                   | 14.7                   | --     |
| Mt. Hood Test Site (T)                              | 2/1            | --               | 36.8              | 40.0                   | 43.3b  |
| Mud Ridge Pillow (T)                                | 2/1            | --               | 12.6              | 14.5                   | --     |
| North Fork Res. (T)                                 | 2/1            | --               | 2.1               | 3.8                    | --     |
| WILLAMETTE WATERSHEDS AREA 8                        |                |                  |                   |                        |        |
| Cascade Summit                                      | e              |                  |                   | 18.6                   | 18.6   |
| Cascade Summit Plw. (T)                             | 2/1            | --               | 23.3              | 21.4                   | --     |
| Champion (DISC. 82)                                 | 1/31           |                  | 14.6a             | 17.2a                  | 16.7   |
| Clackamas Lake (Rev.)                               | e              |                  |                   |                        |        |
| Clackamas Lake Plw. (T)                             | 2/1            | --               | 9.9               | 6.7                    | --     |
| Clear Lake  | e              |                  |                   | 3.8                    | 6.5    |
| Clear Lake Plw. (T)                                 | 2/1            | --               | 8.4               | 9.2                    | --     |
| Clear Lake Expt.                                    | e              |                  |                   | 6.6                    | 10.4   |
| Daly Lake Plw. (T)                                  | 2/1            | --               | 6.2               | 4.2                    | --     |
| Dead Horse Grade                                    | e              |                  |                   | 3.8                    | 10.0   |
| Golden Curry Creek(DISC.82)                         | 2/1            |                  | 1.8a              | 2.4a                   | 2.7    |
| Hogg Pass (DISC. 83)                                | 2/1            |                  | 20.2a             | 22.2                   | 25.3   |
| Hogg Pass Pillow (T)                                | 2/1            | --               | 22.4              | 20.6                   | --     |
| Holland Meadows Plw. (T)                            | 2/1            | --               | 7.8               | 16.4                   | --     |
| Jump Off Joe Pillow (T)                             | 2/1            | --               | 1.6               | 5.5                    | --     |
| Little Meadows Plw. (T)                             | 2/1            | --               | 14.7              | 12.6                   | --     |
| Lost Creek Ranch (DISC.82)                          | 2/1            |                  | 0.0a              | 0.9a                   | --     |
| Marion Forks (Rev.)                                 | e              |                  |                   | 1.9                    | 7.6    |
| Marion Forks Pillow (T)                             | 1/31           | --               | 6.6               | 3.6                    | --     |
| Mary's Peak (Rev.)                                  | 2/1            | 0                | 0.0               | 0.5                    | 5.7b   |
| McCredie Springs (DISC.82)                          | 2/1            |                  | 0.0a              | 0.0a                   | 0.4    |
| McKenzie  | e              |                  |                   | 23.4                   | 28.2   |
| McKenzie Pillow (T)                                 | 2/1            | --               | 23.5              | 26.1                   | --     |
| Mt. Hood Test Site (T)                              | 2/1            | --               | 36.8              | 40.0                   | 43.3b  |
| Peavine Ridge Pillow (T)                            | 2/1            | --               | 5.2               | 9.3                    | 11.7b  |
| Railroad Overpass                                   | e              |                  |                   | 0.0                    | 1.3    |
| Railroad Overpass Plw. (T)                          | 2/1            | --               | 0.0               | 0.3                    | --     |
| Roaring River Plw. (T)                              | 2/1            | --               | 18.8              | 19.3                   | --     |
| Saddle Mtn. Pillow (T)                              | 2/1            | --               | 0.0               | 0.0                    | --     |
| Salt Creek Falls                                    | e              |                  |                   | 7.8                    | 9.4    |
| Salt Creek Falls Plw. (T)                           | 2/1            | --               | 11.9              | 14.7                   | --     |
| Santiam Junction                                    | e              |                  |                   | 12.3                   | 15.4   |
| Santiam Junction Plw. (T)                           | 2/1            | --               | 12.8              | 14.5                   | --     |
| Seine Creek Pillow (T)                              | 2/1            | --               | 1.0               | 0.6                    | --     |
| Summit Lake Pillow (T)                              | 2/1            | --               | 29.6              | 23.3                   | --     |
| Timothy Lake  | 1/31           | 20               | 5.8               | --                     | 9.6b   |
| Weaver Creek (DISC. 82)                             | 2/1            |                  | 0.0a              | 0.2a                   | 0.5    |
| White Branch Slide(DISC.82)                         | 2/1            |                  | 0.0a              | 1.3a                   | 5.3    |
| Whitewater Bridge(DISC.82)                          | 2/1            |                  | 2.6a              | 0.7a                   | 5.0    |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE  | THIS YEAR      |                  |                   | PAST RECORD            |        |
|------------------------------------|----------------|------------------|-------------------|------------------------|--------|
|                                    | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|                                    |                |                  |                   | Last Yr.               | Ave. ° |
| ROGUE, UMPQUA WATERSHEDS<br>AREA 9 |                |                  |                   |                        |        |
| Althouse #2                        | 1/30           | 0                | 0.0               | 5.0                    | 4.2b   |
| Althouse #3                        | 1/30           | 12               | 5.0               | 16.0                   | --     |
| Annie Springs (Disc. 83)           | 2/3            |                  | 34.0a             | 36.6                   | 27.7   |
| Annie Springs (Rev.)               | 2/3            | 79               | 33.5              | --                     | --     |
| Beaver Dam Creek                   | 1/31           | 33               | 13.6              | 16.5                   | 9.0    |
| Bigelow Camp Plw. (T)              | 2/1            | --               | 3.3               | 19.8                   | --     |
| Big Red Mtn (DISC.83)              |                |                  |                   | 37.2a                  | 18.1   |
| Big Red Mtn. Rev.                  | 1/26           | 56               | 23.1              | 36.8                   | --     |
| Big Red Mtn. Plw. (T)              | 2/1            | --               | 20.8              | 31.3                   | --     |
| Billie Cr. Div.(DISC. 83)          | e              |                  |                   | 19.5                   | 14.0   |
| Billie Cr. Div. Plw. (T)           | 2/1            | --               | 27.0              | 18.3                   | --     |
| Caliban (Alternate)                | 1/27           | 54               | 21.2              | 29.3                   | 17.5   |
| Champion (DISC. 82)                | 1/31           |                  | 14.6a             | 7.2a                   | --     |
| Cold Spgs. Camp (DISC. 83)         |                |                  |                   | 27.5a                  | 22.5   |
| Cold Springs Camp Rev.             | 1/27           | 84               | 32.7              | 27.8                   | --     |
| Cold Spgs. Camp Plw. (T)           | 2/1            | --               | 32.5              | 28.0                   | --     |
| Deadwood Junction                  | 1/31           | 12               | 5.7               | 10.7                   | 6.1    |
| Diamond-Crater Sum.(DISC.82)       | e              |                  |                   | 25.6a                  | --     |
| Diamond Lake                       | 1/25           | 38               | 12.8              | 14.5                   | 13.6   |
| Diamond Lake Plw. (T)              | 2/1            | --               | 10.0              | --                     | --     |
| Fish Lake                          | 1/27           | 33               | 13.9              | 12.6                   | 9.1b   |
| Fish Lake Pillow (T)               | 2/1            | --               | 12.4              | 11.8                   | --     |
| Fourmile Lake (DISC. 83)           | 1/27           |                  | 20.4a             | 19.9                   | 12.4b  |
| Fourmile Lake Plw. (T)             | 2/1            | --               | 33.3              | 23.1                   | --     |
| Grayback Peak                      | 1/26           | 32               | 14.5              | --                     | 15.1   |
| Howard Prairie Reservoir           | 1/31           | 21               | 8.2               | 12.1                   | 5.8    |
| Hyatt Prairie Reservoir            | 1/31           | 17               | 7.6               | 11.2                   | 6.3    |
| Hyatt Prairie Res. Plw. (T)        | 2/1            | --               | 5.8               | 11.4                   | --     |
| King Mountain #1                   | 1/30           | 0                | 0.0               | 7.3                    | 4.2b   |
| King Mountain #2                   | 1/30           | 0                | 0.0               | 5.6                    | 2.8b   |
| King Mountain #2 Plw. (T)          | 2/1            | --               | 0.0               | 3.9                    | --     |
| King Mountain #3                   | 1/31           | 0                | 0.0               | 0.0                    | 0.6b   |
| King Mountain #4                   | 1/31           | 0                | 0.0               | 0.0                    | --     |
| King Mountain #5                   | 1/31           | 0                | 0.0               | 0.0                    | --     |
| King Mountain #6                   | 1/31           | 0                | 0.0               | 0.0                    | --     |
| Mt. Ashland Switchback             | 1/27           | 63               | 22.8              | 28.3                   | 22.9b  |
| Mule Creek                         | 1/30           | 0                | 0.0               | 0.0                    | 6.6b   |
| North Umpqua                       | 1/30           | 27               | 9.4               | 8.1                    | 10.0   |
| Page Mountain                      | 1/30           | 0                | 0.0               | 0.0                    | 4.1    |
| Park Headquarters (Disc. 83)       | 1/30           |                  | 45.8a             | 48.1                   | 38.2   |
| Park Headquarters (Rev.)           | 1/30           | 109              | 46.4              | --                     | --     |
| Red Butte #1                       | 1/27           | 2                | 0.9               | 6.8                    | 7.5    |
| Red Butte #2                       | 1/27           | TR               | 0.1               | 4.5                    | 4.8    |
| Red Butte #3                       | 1/27           | 0                | 0.0               | 0.0                    | 2.7    |
| Red Butte #4                       | 1/27           | 0                | 0.0               | 0.0                    | 1.4    |
| Red Butte #5                       | 1/27           | 0                | 0.0               | 0.0                    | 0.5    |
| Red Butte #6                       | 1/27           | 0                | 0.0               | 0.0                    | --     |
| Seven Mile                         | 1/31           | 77               | 30.2              | --                     | 17.2b  |
| Seven Mile Pillow (T)              | 2/1            | --               | 16.0              | 25.9                   | --     |
| Silver Burn                        | 2/1            | 23               | 8.5               | 9.7                    | 8.7    |
| Siskiyou Summit                    | 1/26           | 15               | 6.2               | 9.1                    | 5.3    |
| Ski Bowl Road                      | 1/27           | 57               | 21.0              | 28.0                   | 18.7b  |
| South Fork Canal                   | 2/1            | 0                | 0.0               | 0.0                    | 2.7    |
| Trap Creek                         | 1/30           | 16               | 6.0               | 6.2                    | 8.4    |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE | THIS YEAR      |                  |                   | PAST RECORD            |        |
|-----------------------------------|----------------|------------------|-------------------|------------------------|--------|
|                                   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|                                   |                |                  |                   | Last Yr.               | Ave. ° |
| KLAMATH WATERSHEDS<br>AREA 10     |                |                  |                   |                        |        |
| Annie Springs (Disc. 83)          | 2/3            |                  | 34.0a             | 36.6                   | 27.7   |
| Annie Springs (Rev.)              | 2/3            | 79               | 33.5              | --                     | --     |
| Billie Cr. Div. (DISC. 83)        | e              |                  |                   | 19.5                   | 14.0   |
| Billie Cr. Div. Plw. (T)          | 2/1            |                  | 27.0              | 18.3                   | --     |
| Chemult Alternate                 | 2/1            | 39               | 11.3              | 12.3                   | 8.9    |
| Chemult Alternate Plw. (T)        | 2/1            | --               | 11.0              | 8.3                    | --     |
| Chiloquin (PP&L)                  | 1/31           | 10               | 4.0               | 0.0                    | 1.9b   |
| Cold Spgs. Camp (DISC. 83)        |                |                  |                   | 27.5a                  | 22.5   |
| Cold Springs Camp Rev.            | 1/27           | 84               | 32.7              | 27.8                   | --     |
| Cold Spgs. Camp Plw. (T)          | 2/1            | --               | 32.5              | 28.0                   | --     |
| Crazyman Flat *                   | 1/26           | 21               | 6.5               | 9.0                    | 6.7    |
| Crowder Flat (Calif)              | 1/26           | 10               | 3.3               | --                     | 2.4    |
| Crystal (PP&L)                    | 1/31           | 22               | 8.5               | 5.0                    | 6.2b   |
| Diamond-Crater Sum.(DISC.82)      | e              |                  |                   | 25.6a                  | --     |
| Dog Hollow *                      | 1/26           | 4                | 1.3               | 2.1                    | 0.9    |
| Finley Corrals *                  | 1/26           | 51               | 17.3              | 15.4                   | 11.6   |
| Fort Klamath (PP&L)               | 1/31           | 15               | 6.0               | 4.0                    | 3.0b   |
| Fourmile Lake (DISC. 83)          | 1/27           |                  | 10.4a             | 19.9                   | 12.4   |
| Fourmile Lake Plw. (T)            | 2/1            | --               | 33.3              | 23.1                   | --     |
| Gerber                            | 2/1            | 10               | 3.9               | 2.5                    | 2.4    |
| Harriman (PP&L)                   | 1/31           | 12               | 5.5               | 0.1                    | 3.7b   |
| Howard Prairie Reservoir          | 1/31           | 21               | 8.2               | 12.1                   | 6.3    |
| Hyatt Prairie Reservoir           | 1/31           | 17               | 7.6               | 11.2                   | 5.4    |
| Hyatt Prairie Res. Plw. (T)       | 2/1            | --               | 5.8               | 11.4                   | --     |
| Park Headquarters (Disc. 83)      | 1/30           |                  | 45.8a             | 48.1                   | 38.2   |
| Park Headquarters (Rev.)          | 1/30           | 109              | 46.4              | --                     | --     |
| Quartz Mountain                   | 1/31           | 23               | 7.7               | 7.4                    | 4.6    |
| Quartz Mtn. Pillow (T)            | 2/1            | --               | 10.0              | 11.6                   | --     |
| Seven Mile                        | 1/31           | 77               | 30.2              | --                     | 17.2b  |
| Seven Mile Pillow (T)             | 2/1            | --               | 16.0              | 25.9                   | --     |
| State Line (Calif.) *             | 1/26           | 22               | 7.3               | --                     | 6.0    |
| Strawberry                        | 1/27           | 23               | 7.5               | 7.9                    | 5.4b   |
| Strawberry Pillow (T)             | 2/1            | --               | 5.3               | 8.9                    | --     |
| Summer Rim *                      | 1/26           | 39               | 11.3              | 14.7                   | 10.7   |
| Summer Rim                        | e              |                  |                   |                        |        |
| Summer Rim Pillow (T)             | 2/1            | --               | 17.8              | 18.7                   | --     |
| Sycan Flat *                      | 1/26           | 21               | 8.0               | 6.3                    | 5.1    |
| Taylor Butte                      | 1/30           | 21               | 7.0               | 6.5                    | 3.7    |
| Taylor Butte Pillow (T)           | 2/1            | --               | 9.2               | 5.1                    | --     |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 1

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE  | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|--|----------------|------------------|-------------------|------------------------|-------------------|
|  | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|  |                |                  |                   | Last Yr.               | Ave. <sup>c</sup> |
| LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11   |                |                  |                   |                        |                   |
| Adin Mountain (Calif.)   | 1/30           | 35               | 12.0              | 13.1                   | 8.0               |
| Bald Mountain (Nev.)   | 1/26           | 20               | 6.2               | 3.6                    | --                |
| Barley Camp *  | 1/26           | 44               | 14.5              | 14.7                   | --                |
| Bear Flat Meadow *   | 1/26           | 31               | 10.2              | 11.5                   | 6.6               |
| Camas Creek #1   | 1/31           | 31               | 10.4              | 10.6                   | 7.3               |
| Camas Creek #2   | 1/31           | 37               | 11.7              | 12.4                   | --                |
| Cedar Pass (Calif.)  | 1/25           | 48               | 17.2              | 11.4                   | 10.3              |
| Colvin Creek *   | 1/26           | 19               | 5.9               | 7.0                    | 3.3b              |
| Cox Flat *   | 1/26           | 21               | 6.9               | 10.9                   | 4.8               |
| Crowder Flat (Calif.)  | 1/26           | 10               | 3.3               | 3.0                    | 2.4               |
| Dismal Swamp (Calif.) *  | 1/26           | 89               | 29.4              | 19.2                   | 11.0              |
| Dismal Swamp #2 Plw. (T)   | 2/1            | --               | 27.9              | 21.3                   | --                |
| Finley Corrals *   | 1/26           | 51               | 17.3              | 15.4                   | 11.6              |
| Hart Mountain *  | 1/26           | 14               | 4.5               | 2.2                    | 1.1               |
| Little Bally Mtn. (Nev.)   | 1/26           | 12               | 4.1               | 5.3                    | 2.4               |
| Mt. Bidwell (Calif.)   | e              |                  |                   | --                     | --                |
| North Star (Calif.)  | e              |                  |                   | --                     | --                |
| Patton Meadows *   | 1/26           | 51               | 15.8              | 15.7                   | 11.5              |
| Quartz Mountain  | 1/31           | 23               | 7.7               | 7.4                    | 4.6               |
| Quartz Mountain Plw. (T)   | 2/1            | --               | 10.0              | 11.6                   | --                |
| Reservation Creek (Calif.)   | 1/30           | 43               | 16.8              | 10.0                   | 8.0               |
| Rogger Meadows *   | 1/26           | 39               | 12.5              | 13.8                   | --                |
| Sherman Valley *   | 1/26           | 38               | 11.8              | 14.7                   | 7.5               |
| Silver Creek   | 2/1            | 15               | 6.8               | 2.8                    | 2.0               |
| Silver Creek Plw. (T)  | 2/1            | --               | 10.1              | 12.2                   | --                |
| State Line (Calif.) *  | 1/26           | 22               | 7.3               | --                     | 6.0               |
| Strawberry   | 1/27           | 23               | 7.5               | 7.9                    | 5.4b              |
| Strawberry Plw (T)   | 2/1            | --               | 5.3               | 8.9                    | --                |
| Summer Rim *   | 1/26           | 39               | 11.3              | 14.7                   | 10.7              |
| Summer Rim   | e              |                  |                   |                        |                   |
| Summer Rim Plw. (T)  | 2/1            | --               | 17.8              | 18.7                   | -                 |
| Sycan Flat *   | 1/26           | 21               | 8.0               | 6.3                    | 5.4               |
| * Aerial<br>TR = Trace<br>T = Telemetry Measurement<br>S = Snow Tube Measurement<br>M = Manometer Measurement<br>(DISC. ##) = Snow Course<br>manual measurement discontinued<br>in year shown-estimates to be<br>made for 5 years. |                |                  |                   |                        |                   |

\* Aerial  
 TR = Trace  
 T = Telemetry Measurement  
 S = Snow Tube Measurement  
 M = Manometer Measurement  
 (DISC. ##) = Snow Course manual measurement discontinued in year shown-estimates to be made for 5 years.

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE  | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|------------------------------------|----------------|------------------|-------------------|------------------------|-------------------|
|                                    | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|                                    |                |                  |                   | Last Yr.               | Ave. <sup>c</sup> |
| HARNEY BASIN WATERSHEDS<br>AREA 12 |                |                  |                   |                        |                   |
| Blue Mountain Springs              | 1/26           | 46               | 15.2              | 14.5                   | 11.4              |
| Blue Mtn. Spgs. Plw. (T)           | 2/1            | --               | 8.8               | 17.3                   | --                |
| Buck Pasture *                     | Late Report    |                  |                   | --                     | 1.3               |
| Buckskin Lake *                    | Late Report    |                  |                   | --                     | 0.7b              |
| Call Meadows *                     | Late Report    |                  |                   | --                     | 2.8               |
| Delintment Lake (DISC.82)          | e              |                  |                   |                        |                   |
| Disaster Peak (Nev.)               |                |                  |                   | 14.4                   | --                |
| Emigrant Butte (DISC. 82)          | 1/25           |                  | 4.5a              | 3.8a                   | 2.9               |
| Fish Creek (Rev.)                  | 1/25           | 73               | 26.2              | 21.0                   | --                |
| Fish Creek Plw. (T)                | 2/1            | --               | 31.3              | 28.0                   | --                |
| Government Corrals                 | 1/31           | 48               | 18.0              | 11.5                   | --                |
| Hart Mountain *                    | 1/26           | 14               | 4.5               | 2.2                    | 1.1               |
| Idlewild Camp Alt(DISC.82)         | 1/25           |                  | 6.3a              | 5.1a                   | 3.8b              |
| Izee Summit (DISC. 82)             | 1/25           |                  | 8.3a              | 7.2a                   | 5.6               |
| Lake Creek R.S.                    | 1/26           | 37               | 11.8              | 10.4                   | 7.1               |
| Lake Creek R.S. Plw. (T)           | 2/1            | --               | 16.0              | 13.5                   | --                |
| Oregon Canyon *                    | Late Report    |                  |                   | --                     | 4.0b              |
| Pueblo Summit *                    | Late Report    |                  |                   | --                     | --                |
| Rock Springs                       | 1/25           | 29               | 8.4               | 6.9                    | 4.2               |
| Rock Springs Plw. (T)              | No Report      |                  |                   | 7.2                    | --                |
| Silvies                            | 1/25           | 40               | 14.5              | 11.5                   | --                |
| Silvies Pillow (T)                 | 2/1            | --               | 15.3              | 24.2                   | --                |
| Snow Mountain (DISC.82)            | 2/1            |                  | 18.5a             | 16.1a                  | 9.4b              |
| Snow Mountain Plw. (T)             | 2/1            | --               | 15.2              | 13.0                   | --                |
| Starr Ridge                        | 1/25           | 27               | 7.2               | 6.1                    | 4.4               |
| Starr Ridge Pillow (T)             | 1/31           | --               | 9.4               | 8.1                    | --                |
| Stinking Water                     | e              |                  |                   | 4.3                    | 2.2               |
| Trout Creek *                      | Late Report    |                  |                   | --                     | 4.9               |
| "V" Lake *                         | Late Report    |                  |                   | --                     | 4.2               |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 2

## PRECIPITATION (Inches)

| DRAINAGE BASIN and PRECIPITATION GAGE LOCATION | ELEVATION | CURRENT INFORMATION   |               | PAST RECORD |                      |
|--|-----------|-----------------------|---------------|-------------|----------------------|
|  |           | Date of Reading       | Precipitation | Last Year   | Average <sup>c</sup> |
| Aneroid Lake #2 (Wallowa County)               | 7300      | From 1/2<br>To 1/27   | 16.2          |             |                      |
| Arbuckle Mountain (Morrow County)              | 5400      | From 12/28<br>To 1/30 | 4.08          |             |                      |
| Beaver Reservoir (Union County)                | 5150      | From 12/30<br>To 1/26 | 5.28          |             |                      |
| Bigelow Camp (Josephine County)                | 5120      | From 1/1<br>To 1/26   | 0.94          |             |                      |
| Big Red Mountain (Jackson County)              | 6250      | From 9/30<br>To 1/26  | 33.24         |             |                      |
| Billie Creek Divide (Jackson County)           | 5310      | From 12/30<br>To 1/27 | 6.96          |             |                      |
| Blue Mountain Springs (Grant County)           | 5900      | From 12/29<br>To 1/29 | 3.84          |             |                      |
| Bourne (Baker County)                          | 5800      | From 9/28<br>To 1/26  | 20.6          |             |                      |
| Bowman Springs (Union County)                  | 4580      | From 12/28<br>To 1/30 | 5.75          |             |                      |
| Cold Springs (Klamath County)                  | 6100      | From 1/1<br>To 1/30   | 6.92          |             |                      |
| County Line (Umatilla County)                  | 4800      | From 12/28<br>To 1/30 | 4.67          |             |                      |
| Deer (Wheeler County)                          | 5670      | From 1/1<br>To 1/25   | 1.36          |             |                      |
| Diamond Lake (Douglas County)                  | 4600      | From 12/28<br>To 1/25 | 4.32          |             |                      |
| Eilertson Meadows (Baker County)               | 5400      | From 12/30<br>To 1/26 | 10.9          |             |                      |
| Fish Creek (Harney County)                     | 7900      | From 9/26<br>To 1/25  | 27.36         |             |                      |
| Fish Lake (Jackson County)                     | 4665      | From 12/30<br>To 1/27 | 3.12          |             |                      |
| Fourmile Lake (Klamath County)                 | 6000      | From 12/30<br>To 1/27 | 3.72          |             |                      |
| Gold Center (Grant County)                     | 5340      | From 12/30<br>To 1/26 | 3.0           |             |                      |
| Greenpoint (Hood River County)                 | 3200      | From 1/1<br>To 1/30   | 4.90          |             |                      |
| Hyatt Prairie (Jackson County)                 | 4900      | From 12/31<br>To 1/31 | 1.80          |             |                      |
| Irish-Taylor (Deschutes County)                | 5500      | From 1/2<br>To 1/31   | 6.98          |             |                      |
| Lake Creek (Grant County)                      | 5120      | From 12/28<br>To 1/26 | 3.60          |             |                      |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

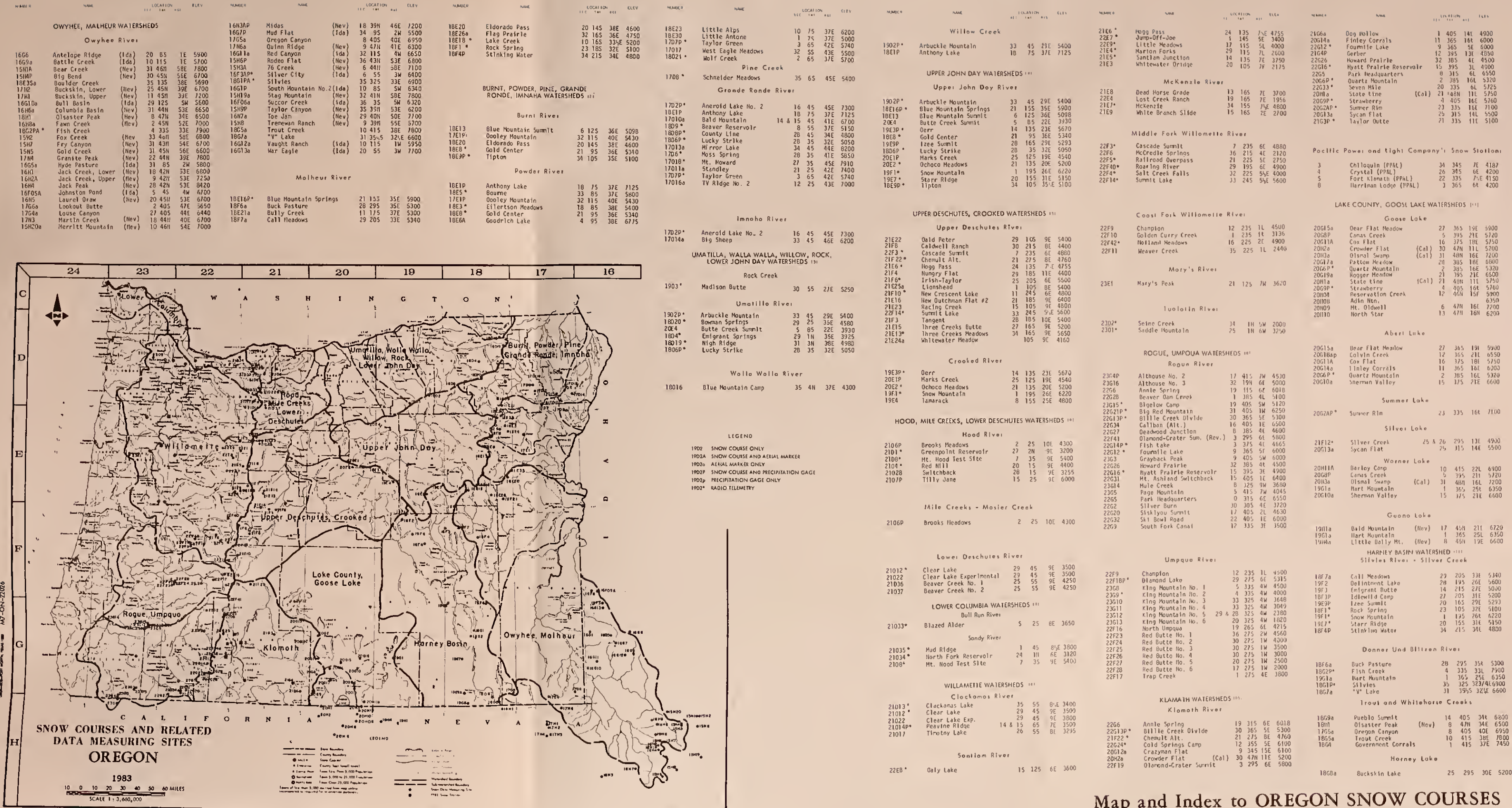
# BASIC DATA SUPPLEMENT 2

## PRECIPITATION (Inches)

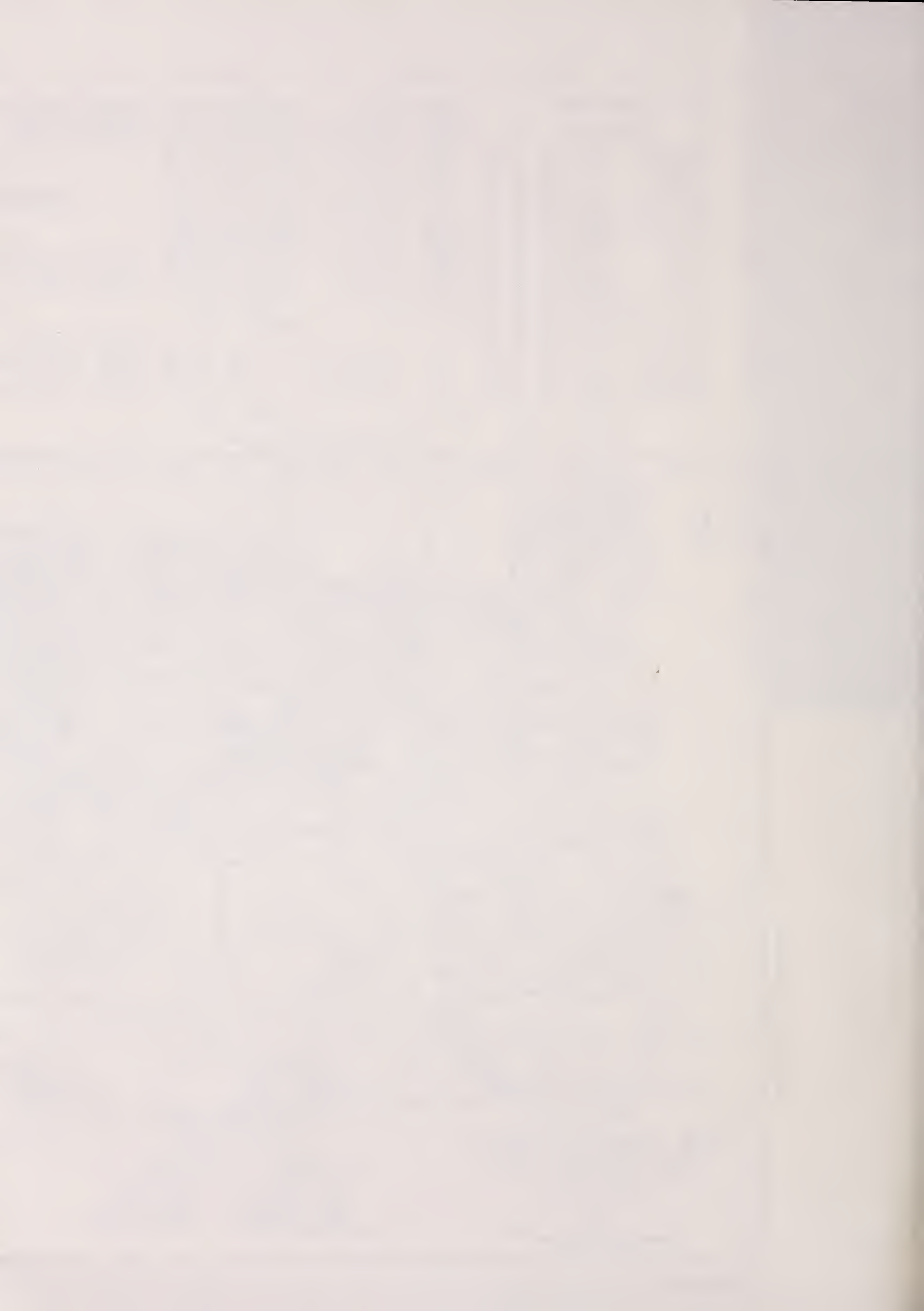
| DRAINAGE BASIN and PRECIPITATION GAGE LOCATION | ELEVATION | CURRENT INFORMATION   |               | PAST RECORDS |         |
|--|-----------|-----------------------|---------------|--------------|---------|
|  |           | Date of Reading       | Precipitation | Last Year    | Average |
| Lucky Strike (Umatilla County)                 | 5050      | From 12/28<br>To 1/30 | 0.78          |              |         |
| Madison Butte (Morrow County)                  | 5250      | From 12/28<br>To 1/30 | 2.52          |              |         |
| Moss Springs (Union County)                    | 5850      | From 1/1<br>To 1/27   | 8.14          |              |         |
| Mt. Hood Test Site (Clackamas County)          | 5400      | From 1/11<br>To 1/27  | 8.52          |              |         |
| Mt. Howard (Wallowa County)                    | 7910      | From 1/1<br>To 1/27   | 3.64          |              |         |
| Ochoco Meadows (Crook County)                  | 5200      | From 1/1<br>To 1/26   | 15.0          |              |         |
| Quartz Mountain (Lake County)                  | 6300      | From 12/28<br>To 1/27 | 1.44          |              |         |
| Red Hill (Hood River County)                   | 4400      | From 1/1<br>To 1/31   |               |              |         |
| Rock Springs (Grant County)                    | 5100      | From 12/27<br>To 1/25 | 0.98          |              |         |
| Schneider Meadows (Baker County)               | 5400      | From 1/1<br>To 1/27   | 1.30          |              |         |
| Seven Mile (Klamath County)                    | 5725      | From 1/1<br>To 1/31   | 12.08         |              |         |
| Silver Creek (Lake County)                     | 5720      | From 9/29<br>To 2/1   | 16.08         |              |         |
| Silvies (Harney County)                        | 6900      | From 9/26<br>To 1/25  | 22.80         |              |         |
| Starr Ridge (Grant County)                     | 5156      | From 12/28<br>To 1/25 | 1.92          |              |         |
| Summit Lake (Klamath County)                   | 5600      | From 1/1<br>To 1/30   | 6.76          |              |         |
| Taylor Green (Baker County)                    | 5740      | From 10/20<br>To 1/27 | 22.16         |              |         |
| Three Creek Meadows (Deschutes County)         | 5650      | From 1/1<br>To 1/27   | 2.00          |              |         |
| Tipton (Baker County)                          | 5100      | From 12/30<br>To 1/26 | 2.24          |              |         |
| Wolf Creek (Union County)                      | 5720      | From 9/29<br>To 1/26  | 17.88         |              |         |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.





Map and Index to OREGON SNOW COURSES





# The Following Organizations Cooperate in the Oregon Snow Survey Work

## STATE

*Idaho Cooperative Snow Surveys*  
*Nevada Cooperative Snow Surveys*  
*Oregon State University*  
*Oregon Department of Water Resources*  
*Soil and Water Conservation Districts of Oregon*

## COUNTY

*Douglas County Water Resources Survey*

## FEDERAL

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*Cooperative Extension Service*  
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*Soil Conservation Service*  
*Department of Army*  
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*Tumalo Project*  
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## PRIVATE ORGANIZATIONS

*The Crag Rats, Hood River, Oregon*

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